D.T.E. 02-24/25

Petition of Fitchburg Gas and Electric Light Company, pursuant to General Laws Chapter 164, § 94, and 220 C.M.R. §§ 5.00 et seq. for a General Increase in Gas and Electric Rates.

APPEARANCES: Patricia M. French, Esq.
Scott J. Mueller, Esq.
Meabh Purcell, Esq.
LeBoeuf, Lamb, Greene & MacRae, L.L.P.
260 Franklin Street
Boston, Massachusetts 02110
FOR: FITCHBURG GAS AND ELECTRIC LIGHT COMPANY
Petitioner

Thomas F. Reilly, Attorney General
BY: Edward G. Bohlen
Wilner Borgella, Jr.
Alexander Cochis
Karlen Reed
Assistant Attorneys General
200 Portland Street
Boston, Massachusetts 02114
Intervenor

Matthew Morais, Esq.
Carol R. Wasserman, Esq.
Division of Energy Resources
70 Franklin Street
Boston, Massachusetts 02110
Intervenor

Robert Ruddock, Esq.
222 Berkeley Street
Boston, Massachusetts 02117
FOR: ASSOCIATED INDUSTRIES OF MASSACHUSETTS
Limited Participant

Robert N. Werlin, Esq.
Keegan, Werlin & Pabian, L.L.P.
21 Custom House Street
Boston, Massachusetts 02110
FOR: BOSTON EDISON COMPANY,
CAMBRIDGE ELECTRIC LIGHT COMPANY,
COMMONWEALTH ELECTRIC COMPANY, and
NSTAR GAS COMPANY
Limited Participants

Thomas P. O'Neill, Esq.
One Beacon Street
Boston, Massachusetts 02108
FOR: KEYSPAN ENERGY DELIVERY
Limited Participant

Andrew O. Kaplan, Esq.
Keegan, Werlin & Pabian, L.L.P.
21 Custom House Street
Boston, Massachusetts 02110
FOR: NEW ENGLAND GAS COMPANY
Limited Participant

Stephen Klionsky, Esq.
101 Federal Street, 13th Floor
Boston, Massachusetts 02109
FOR: WESTERN MASSACHUSETTS ELECTRIC
COMPANY
Limited Participant

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I. INTRODUCTION

A. Procedural History

On May 17, 2002, Fitchburg Gas and Electric Light Company ("Fitchburg" or "Company") filed with the Department of Telecommunications and Energy ("Department"), pursuant to G.L. c. 164, § 94, proposed rates and charges designed to (1) increase the Company's gas division annual revenues by $3,413,357, and (2) increase the Company's electric division annual revenues by $3,206,768.[1] The Company's petitions were docketed as D.T.E. 02-24 and D.T.E. 02-25. The Department consolidated both rate filings (Tr. C at 15). By Order dated May 28, 2002, the Department suspended the effective date of the proposed tariffs until December 3, 2002, in order to investigate the propriety of the changes sought by Fitchburg. The Company was last granted a gas base rate increase of $998,131 on November 30, 1998. Fitchburg Gas and Electric Light Company, D.T.E. 98-51 (1998). The Company was last granted an electric base rate increase of $2,183,895 on January 31, 1985. Fitchburg Gas and Electric Light Company, D.P.U. 84-145-A (1985). The Department ordered the Company to reduce its electric base rates, pursuant to G.L. c. 164, § 93, by $1,170,426 on October 18, 2001. Fitchburg Gas and Electric Light Company, D.T.E. 99-118 (2001).

Fitchburg supplies gas service to the municipalities of Fitchburg, Ashby, Gardner, Westminster, Townsend, and Lunenburg. Fitchburg supplies electric service to the

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[1] Fitchburg later amended this amount to $3,418,271 (gas) and $3,531,553 (electric) (Fitchburg Reply Brief, Att. 2, at 5; Att. 1, at 5).

municipalities of Fitchburg, Lunenberg, Townsend, and Ashby. Fitchburg is a wholly-owned subsidiary of Unitil Corporation ("Unitil"), a holding company that also owns two electric companies with service territories in New Hampshire: Concord Electric Company and Exeter & Hampton Electric Company. In addition, Unitil owns: Unitil Power Corporation; Unitil Resources, Inc.; Unitil Service Corporation[2] ("Unitil Service"); and Unitil Realty Corporation.

Pursuant to notice duly issued, the Department held a public hearing on June 20, 2002, in Fitchburg to afford interested persons an opportunity to comment on the Company's proposed rates. The Attorney General of the Commonwealth of Massachusetts ("Attorney General") filed a notice of intervention as of right, pursuant to G.L. c. 12, § 11E. The Department granted the Commonwealth of Massachusetts Division of Energy Resources' ("DOER") petition for intervention. The Department granted limited participant status to KeySpan Energy Delivery; Boston Edison Company, Cambridge Electric Light Company, and Commonwealth Electric Company (together, "NSTAR Electric"); NSTAR Gas Company; Western Massachusetts Electric Company; New England Gas Company; and Associated Industries of Massachusetts.

Fifteen days of evidentiary hearings were held between August 5, 2002, and September 10, 2002. The Attorney General, DOER, and NSTAR Electric filed initial briefs and reply briefs. The record consists of 827 exhibits and 141 responses to record requests.

In support of its filing, the Company sponsored the testimony of the following five witnesses: Mark H. Collin, treasurer of Fitchburg and Unitil Service; Karen M. Asbury,

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[2] Unitil Service provides management services to Unitil's subsidiaries.

director of regulatory services for Unitil Service; James H. Aikman, a management consultant for Management Applications Consulting, Inc. ("MAC"); James L. Harrison, a vice-president for MAC; and Dr. Samuel C. Hadaway, a principal of FINANCO, Inc.

B. Procedural Rulings

1. Introduction

The Department will first address the following outstanding procedural matters: (1) the appeal of the Hearing Officer's denial of the Attorney General's motion to strike portions of record request AG-7, filed August 26, 2002; (2) the Attorney General's motion to strike specific sections of the Company's initial brief pertaining a former substation at Sawyer Passway ("Sawyer I"), filed October 17, 2002; (3) the Company's motion to admit post-hearing evidence regarding its Unitil retiree trust ("URT"), filed October 9, 2002; and (4) the Attorney General's appeal of the procedural schedule, filed June 26, 2002.

2. Motion to Strike Portions of RR-AG-7

a. Introduction

The Attorney General asked Fitchburg, in a record request, to provide a copy of the Company's 1997 Hay Group[3] survey report, which the Company used to benchmark test year and pro forma adjustments to compensation benefits (Tr. 1, at 103; Tr. 15, at 1781). Fitchburg responded that the Company discards the surveys annually as they are updated, but alternatively offered the updated surveys (RR-AG-7). The Attorney General moved to strike certain portions of Fitchburg's response on the grounds that the information was irrelevant,

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[3] The Hay Group is a consultant in the field of employee compensation.

unresponsive, untimely, and attempted to include extra-record information (Motion to Strike at 2). The Hearing Officer denied the Attorney General's motion (Tr. 11, at 1367-1368).

b. Positions of the Parties

i. Attorney General

The Attorney General states that the Hearing Officer abused his discretion in denying the Attorney General's motion to strike all but the first two sentences of the Company's response to record request AG-7[4] (Motion to Strike at 3). Specifically, the Attorney General states that portions of Fitchburg's response purporting to support the Company's wage and benefits compensation proposal documents, were not filed with the Department (id.). The Attorney General asserts that by referencing new material in the latter stages of the evidentiary phase of this proceeding, Fitchburg deprived the Attorney General of the opportunity to effectively cross-examine the Company's witness regarding the proposal (id.).

ii. Fitchburg

Fitchburg states that the Hearing Officer did not abuse his discretion in denying the Attorney General's motion to strike, that the Company's response to record request AG-7 is both relevant and responsive to the record request, and that the Attorney General's argument is a "red herring" (Fitchburg Response at 4-5). Fitchburg states that it did not retain the 1997 compensation surveys because these surveys were updated and made available (id. at 6). Fitchburg states that the 1997 surveys that underlie the Hay Group recommendations in 1998

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[4] Record request AG-7 seeks to establish whether the Company has a copy of the compensation surveys used in the 1997 Hay Group report.

are "irrelevant to any material issue that the Department must decide relative to the 2001 test year payroll and the adjustment to the test year payroll" (id. at 1).

c. Analysis and Findings

The Department has held that where there is no evidence that the presiding officer abused his discretion in ruling on a motion, the decision of the presiding officer must be affirmed. Verizon New England, D.T.E. 01-20, Interlocutory Order (June 12, 2001); Berkshire Gas Company, D.T.E. 01-56, at 6-7 (2002). The Department's procedural rules provide the Hearing Officer with the discretion to make all decisions regarding the admission or exclusion of evidence, or any other procedural matters which may arise in the course of a hearing. 220 C.M.R. § 1.06(6)(a). While the Attorney General contends that the Hearing Officer denied the motion "without giving any reasons" (Motion to Strike at 2), the Hearing Officer made his ruling after hearing oral argument from both parties (Tr. 11, at 1367-1368). The Hearing Officer's ruling on the Attorney General's motion effectively adopted the Company's position, i.e., that the Company's response was relevant and responsive to the record request. As noted above, it is well within the Hearing Officer's discretion to make all decisions regarding the admission or exclusion of evidence. Further, pursuant to G.L. c. 30A, § 11(2), administrative agencies need not adhere to the rules of evidence observed by courts, but may admit evidence and give testimony probative effect if it is the kind of evidence on which reasonable persons are accustomed to rely on in the conduct of serious affairs. See also, 220 C.M.R. § 1.10(1). Therefore, the Department finds that the Hearing Officer did not abuse

his discretion in denying the Attorney General's motion to strike record request AG-7, and we affirm the Hearing Officer's ruling.

3. Motion to Strike Portions of Company Initial Brief

a. Introduction

In its initial brief, Fitchburg makes several statements concerning the annual depreciation expense and removal costs associated with Sawyer I (Fitchburg Brief at 21-22). The Attorney General urges the Department to strike some of those statements that he considers to be unsupported by the record evidence (Attorney General Objection and Cross Motion to Strike at 5-8).

b. Positions of the Parties

i. Attorney General

The Attorney General argues that the Department should strike from Fitchburg's initial brief footnotes nine, ten, and eleven, as well as a portion of pages 21, 23, and 65 because these statements are not supported by the record[5] (Attorney General Objection and Cross Motion to Strike at 6). The Attorney General contends that these portions of the Company's initial brief include information that was not produced during litigation, do not cite to record evidence, and are not included in a motion to admit post-hearing evidence (id.). The Attorney General alleges that Fitchburg has failed to file a motion to reopen the record with a requisite showing

[5] With the exception of the motion to strike a portion of page 65 of Fitchburg's initial brief, the items that the Attorney General asks the Department to strike (i.e., footnotes nine, ten, eleven, and the parts of pages 21 and 23) refer to the accounting and ratemaking treatment that would result from the removal of Sawyer I from rate base (Attorney General Objection and Cross Motion to Strike at 6). Page 65 relates to URT 2002 funding (id.).

of good cause, which is necessary to admit post-hearing evidence (id.). Specifically, the Attorney General argues that: (1) footnote nine changes the record on test year depreciation expense for Sawyer I; and (2) footnotes ten and eleven, the first full sentence on page 21, and subpart one on page 23 of Fitchburg's initial brief, refer to the estimated cost of removing and retiring Sawyer I and are not supported by the record (id.).

ii. Fitchburg

Fitchburg argues that the Department should reject the Attorney General's arguments to strike portions of the Company's initial brief because those portions are necessary for the Department to fully consider the appropriate accounting and ratemaking treatment that would result with the removal of Sawyer I from rate base (Fitchburg Reply at 2, 7). The Company states that Sawyer I's removal costs are illustrative, but provable (id. at 2). According to Fitchburg, the Attorney General's proposed adjustment is one-sided and fails to take into account the unamortized balance of Sawyer I, its accrued depreciation, and the retirement costs (id. at 7).

c. Analysis and Findings

The Attorney General argues that footnote nine in Fitchburg's initial brief changes the record on test year depreciation expense for Sawyer I. While this is technically accurate, the source of this information was also included in the Company's initial filing and was subject to cross examination (Exh. FGE JHA-1 (electric), Sch. JHA-1, at 119; Tr. 12, at 1421, 1472-1473). Therefore, the Department finds that the revised figures that the Company used

for test year depreciation expense in footnote nine are supported by the record evidence. We thus decline to strike footnote nine of the Company's initial brief.

Next, the Attorney General argues that footnotes ten and eleven, the first full sentence on page 21, and subpart one on page 23 of the Company's initial brief, refer to the estimated cost of removing and retiring Sawyer I and are not supported by the record. With respect to footnotes ten and eleven in the Company's initial brief, all of the information contained therein, with the exception of removal cost estimates, is either supported by the record or consists of argument (RR-AG-52). Where an objection is raised to an argument by an opponent that is not supported by the record, the Department may strike all or part of the argument. Fitchburg Gas and Electric Light Company, D.P.U. 19084, at 6 (1977). While the Department declines to strike the passages objected to, we will not give probative value to the removal cost estimates included in footnotes ten and eleven, or in subpart one on page 23 of the Company's initial brief.

The Attorney General argues that the Department also should strike the first full sentence on page 21 of the Company's initial brief.[6] Pursuant to G.L. c. 30A, § 11(2), administrative agencies need not adhere to the rules of evidence observed by courts, but may admit evidence and give testimony probative effect if it is the kind of evidence on which reasonable persons are accustomed to rely on in the conduct of serious affairs. See also

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[6] The sentence reads as follows: "[Fitchburg's] customers are equally responsible for removing the encasement, concrete, bricks and mortar, and until that costly process is completed, which is proceeding as expeditiously as possible, the plant is deemed by [Fitchburg] to be in service and is not retired" (Fitchburg Brief at 21).

220 C.M.R. § 1.10(1). The Department finds that the statement -- whatever its evidentiary deficiencies may be -- consists of argument by Fitchburg, and is appropriately included as part of the Company's initial brief. Therefore, the Department will not strike the first full sentence on page 21 of the Company's initial brief.

Last, the Attorney General argues that the Department should strike the last paragraph on page 65 of the Company's initial brief.[7] According to the Attorney General, the evidence that Fitchburg seeks to include in the record represents historical information that the Company could have provided during the hearings (Attorney General Objection and Cross-Motion to Strike at 5-6). The Department will address this issue below, as part of our review of Fitchburg's motions to admit post-hearing evidence.

4. Motion to Admit Post-Hearing Evidence

a. Introduction

Fitchburg filed a motion to admit post-hearing evidence relating to the URT. The Attorney General objected to Fitchburg's post-hearing motion regarding 2002 URT funding and filed a motion to strike.

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[7] The paragraph reads as follows: "[t]he Attorney General has not requested substantiation of the 2002 URT funding level, but raises this issue for the first time on brief. [Fitchburg's] 2002 cash contribution to the URT is known and measurable" (Fitchburg Brief at 65).

b. Positions of the Parties

i. Fitchburg

Fitchburg moves the Department to admit, post-hearing, a certified one-page copy of a December 31, 2001[8] vote of the Company's board of directors authorizing funding of its URT for 2002 (Motion to Admit URT at 1). As grounds, Fitchburg states that the motion does not substantially change the record, as the known and measurable amounts of 2002 URT funding were included in the Company's original filing (Fitchburg Reply at 6, citing Exhs. FGE MHC-1, at 45 (gas); FGE MHC-1, at 48 (electric)). Further, the Company argues that it submitted the motion because it rebuts an argument that the Attorney General raised for the first time on brief (i.e., that the 2002 URT funding amounts are not known and measurable) (Fitchburg Motion to Admit URT at 1, citing Attorney General Brief at 33; Fitchburg Reply Brief at 4). Fitchburg asserts that while the Company's prefiled testimony stated that a known and measurable pro forma adjustment was required for expected 2002 costs, the Attorney General never cross-examined the Company's witness to determine either (1) how the witness knew the cash was allocated to the URT for 2002, or (2) the propriety of the funding (Motion to Admit URT at 1-2, 4; Fitchburg Reply at 4-5). Fitchburg contends that the URT board vote does not provide "new" information as the Attorney General contends, but merely clarifies and sheds light on an existing fact (Fitchburg Reply at 5). Fitchburg argues that admitting this evidence is reasonable and appropriate, does not alter the Company's pro forma adjustment for

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[8] The printed date was December 31, 2002; we assume that the Company meant December 31, 2001.

either its gas or electric divisions, and that the record was not closed when the Company made the motion on October 9, 2002 (Motion to Admit URT at 1-2; Fitchburg Reply at 4).

ii. Attorney General

The Attorney General argues that the Department should reject the Company's motion to admit the certified one-page board authorization related to 2002 URT funding (Attorney General Objection and Cross-Motion to Strike at 2-8). The Attorney General asserts that the Company's post-hearing motion to admit 2002 URT funding does not meet the Department standard, which requires that the proponent show that the information sought to be admitted was previously unknown, is new, or is extraordinary (id. at 5). The Attorney General argues that the Company has the burden of proving the propriety of the 2002 URT funding, that the post-hearing evidence that the Company seeks to introduce was known to the Company before its initial filing was made, and that the Company could have provided this evidence during hearings (id.). The Attorney General contends that the failure of the Company to provide this information should cause the Department to deny the Company's motion (id. at 5-6).

c. Analysis and Findings

The Department routinely permits the record to remain open after the close of hearings for receipt of updated information on certain non-controversial cost of service items such as rate case expense and health care expense. D.T.E. 01-56, at 36. The filing of updated information also may be permissible in extraordinary or compelling circumstances. Milford Water Company, D.P.U. 92-101, at 36 (1992); Bay State Gas Company, D.P.U. 89-81, at 45 (1989). These adjustments are based on information external to the Company, and almost

entirely outside the control of the company (e.g., inflation adjustments). D.P.U. 92-101, at 36; Western Massachusetts Electric Company, D.P.U. 86-280-A at 17 (1987). A company must file any updated information as early as possible to provide the Department and the parties the opportunity to examine the reasonableness of that category of expenses and proposed adjustment during the regular course of proceedings. D.P.U. 92-101, at 36; D.P.U. 89-81, at 47-48; D.P.U. 86-280-A at 17; 220 C.M.R. § 1.06(6)(c)(5).

In the present case, Fitchburg's post-hearing motion to admit a board vote certifying 2002 URT funding falls outside of the category of updates that are routinely accepted by the Department after the close of evidentiary hearings. First, the vote taken by the board to authorize the funding was taken on December 13, 2001, well before evidentiary hearings began in this matter (Motion to Admit URT, Att. A). Moreover, the Company's argument that the motion to admit 2002 URT funding does not change the record is misplaced, as is the Company's contention that the evidence of the board of directors' commitment to fund the URT for 2002 was raised by the Attorney General for the first time on brief. The Company is seeking recovery of 2002 URT funding amounts. Fitchburg bears the burden of proof for each element of its proposal, and as such, the Company has a duty to present evidence for every issue of its direct case. See Berkshire Gas Company, D.T.E. 01-56-A at 16-17 (2002). Fitchburg did not file the motion to update its 2002 URT funding until October 9, 2002, nearly one month after the conclusion of evidentiary hearings. We find no independent basis in the record to support the Company's claim that the URT board vote is not "new" and merely "sheds light" on the 2002 current funding level established by Exhibits FGE MHC-1 (gas) and

FGE MHC-1 (electric). At most, these exhibits identify the pro forma increases sought for retirement benefits. The Department finds that the motion regarding URT funding is outside the scope of a routine post-hearing update. Therefore, the Company's post-hearing motion to admit evidence of a board vote regarding 2002 URT funding is denied.

5. Attorney General Appeal of Procedural Schedule

a. Introduction

On June 21, 2002, the Attorney General and DOER filed a joint motion seeking approval of a proposed procedural schedule. The joint procedural schedule would have allowed intervenors three weeks after the close of evidentiary hearings to file an initial brief. On June 24, 2002, the Hearing Officer issued a procedural schedule permitting intervenors two weeks after the close of evidentiary hearings to file initial briefs. On June 26, 2002, the Attorney General appealed the Hearing Officer's procedural schedule to the Commission.[9]

b. Positions of the Parties

The Attorney General argues that the Hearing Officer abused his discretion in denying the proposed joint procedural schedule (Procedural Appeal at 1-3). Specifically, the Attorney General argues that the Hearing Officer ignored "general precedent" in rate case procedural scheduling by giving the intervenors only two weeks to file initial briefs (id. at 2). The Attorney General also argues that the Hearing Officer's schedule deprives intervenors of due process and a reasonable opportunity to present his arguments, in contravention of

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[9] DOER did not appeal the Hearing Officer's procedural schedule.

G.L. c. 30A, § 11 (id. at 3). The Company did not respond to the Attorney General's appeal of the procedural schedule.

c. Analysis and Findings

The Department's procedural rules provide the Hearing Officer with the authority to make decisions regarding the admission or exclusion of evidence or any other procedural matters that may arise during the course of evidentiary hearings. 220 C.M.R. § 1.06(6)(a); Western Massachusetts Electric Company, D.T.E. 97-120-3, at 6 (1998). The Hearing Officer, to the extent practicable, shall establish a fair and detailed schedule for the proceeding, including, but not limited to, discovery, the filing of testimony and briefs, in order to promote the orderly disposition of the case. 220 C.M.R. § 1.06(6)(a); D.T.E. 97-120-3, at 6. Moreover, the Department's procedural rules provide the Hearing Officer with the discretion to designate schedules for filing briefs. 220 C.M.R. § 1.11(3); see also D.T.E. 97-120-3, at 6-7. When setting a procedural schedule, the Department must consider not only the instant proceeding, but also other matters under review and manage its docket in an efficient manner.

The Hearing Officer determined that, upon the close of evidentiary hearings, intervenors would have two full weeks to file an initial brief. However, the Hearing Officer also stated in his ruling that in the event that evidentiary hearings concluded early, the briefing schedule could be extended at his discretion (Procedural Schedule and Ground Rules at 2). For all practical purposes, the issue is moot because the briefing period is over. Nonetheless, we are not convinced by the Attorney General's assertion that the Hearing Officer abused his

discretion when he allowed intervenors two weeks to file initial briefs. Further, beyond a mere assertion that the Department's "general precedent" affords intervenors three weeks to file initial briefs, the Attorney General does not identify any legal requirement that intervenors have three weeks to file initial briefs. Cf. D.T.E. 97-120-3, at 6. The Hearing Officer's ruling appropriately balanced the interests of the parties with the Department's need to conduct an efficient proceeding. Therefore, the Department will uphold the Hearing Officer's ruling denying the Attorney General's appeal of the procedural schedule. The Hearing Officer's exercise of the discretion granted under G.L. c. 25, § 4, was proper. The schedule set by the Hearing Officer took appropriate account both of the G.L. c. 25, § 18 six-month constraint on deciding a G.L. c. 164, § 94 rate case and of the other items on the Department's docket, which have their own legitimate but competitive claims on our time and attention.

III. RATE BASE

A. Sawyer Passway Substation

1. Introduction

Sawyer I was designed in the 1930s and 1940s as a generating facility (Exh. FGE MHC-1, at 23 (electric); Tr. 12, at 1421; RR-AG-51, Att. c2, at 3). Over time, because of Sawyer I's proximity to the downtown area of the City of Fitchburg, it was converted from a generating station into a distribution load center (Exh. FGE MHC-1, at 23 (electric)). Despite Sawyer I's major role in Fitchburg's distribution system, the Company states that Sawyer I's system connections were not ideally suited to distribution service because they were configured in a manner that limited protections for overcurrent and lightning strikes (Exhs. FGE MHC-1,

at 23 (electric); DTE 2-25). Additionally, because of Sawyer I's age, voltage could only be adjusted manually (Exh. FGE MHC-1, at 23 (electric)). Finally, because Sawyer I had been formerly used as a generating station, the building contained asbestos, making it dangerous for personnel to work there (Exhs. FGE MHC-1, at 23 (electric); DTE 2-25).

The Company determined that it was necessary to construct a new distribution substation at Sawyer Passway, while maintaining Sawyer I until the replacement substation could be put into service (Exh. FGE MHC-1, at 23 (electric)). During the latter part of 2000, the new Sawyer Passway substation ("Sawyer II") was initially placed into service with one 12/16/20 megavolt-ampere ("MVA") transformer, and became fully operational in June 2001 with the activation of a second 12/16/20 MVA transformer (Exh. FGE MHC-1, at 24 (electric); RR-AG-52). Sawyer I remained on line during 2001 to allow for the construction of additional circuits at Sawyer II, and was taken off line on January 22, 2002 (RR-AG-52).

Although Fitchburg intends to dismantle the facility during 2002 and 2003, Sawyer I was retained in the Company's rate base (RR-AG-52; Tr. 12, at 1427). As of the end of the test year, the Company's rate base associated with Sawyer I consisted of $1,033,889 in gross plant investment and $639,216 in accumulated depreciation, for a net plant investment of $394,673 (RR-AG-52).

2. Positions of the Parties

a. Attorney General

The Attorney General opposes the inclusion of Sawyer I in rate base as both unfair to ratepayers and inconsistent with Department precedent (Attorney General Brief at 8, citing

Fitchburg Gas and Electric Light Company, D.P.U. 18296/18297 (1975); D.P.U. 19084).[10] The Attorney General notes that rate base is determined under the used and useful standard, and that in order to qualify for inclusion in rate base, a utility's plant investment must be in service and providing benefits to customers (Attorney General Brief at 9, citing D.T.E. 98-51, at 9). The Attorney General argues that because Sawyer II came on line in June 2001 and Sawyer I was taken off line in January 2002, Sawyer I was, at most, only marginally used and useful during the test year (Attorney General Brief at 9).

The Attorney General contends that the Department's analysis of the used and useful standard no longer relies on a distinction between usual and unusual plant changes (Attorney General Reply Brief at 3-4, citing Nantucket Electric Company, D.P.U. 91-106/138, at 90 (1983), citing Western Massachusetts Electric Company, D.P.U. 1300, at 18 (1983)).[11] Specifically, the Attorney General argues that the Company has failed to address the most applicable Department precedent regarding extraordinary circumstances (Attorney General Reply Brief at 5). According to the Attorney General, the Department has recognized that the replacement of old plant with large new plant additions, even if the replacement is not expected

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[10] The Attorney General argues that the Supreme Judicial Court has recognized the Department's authority to exclude from rate base the unamortized balance of abandoned plant, even where the original investment was prudent (Attorney General Brief at 8, citing Fitchburg Gas and Elec. Light Co. v. Dep't of Pub. Utils., 371 Mass. 881, 886-887 (1977).

[11] Noting that the Department's decisions in both D.P.U. 91-106/138 and D.P.U. 1300 were based, at least in part, on whether the new plant represented a sizeable increase in proportion to total rate base, the Attorney General distinguishes these cases from the facts presented here, where Sawyer I has actually been replaced by Sawyer II and is therefore no longer used and useful (Attorney General Reply Brief at 5, n.4).

to be completed until well after the end of the test year, constitutes an extraordinary circumstance warranting a post-test year adjustment (Attorney General Reply Brief at 5, citing Western Massachusetts Electric Company, D.P.U. 85-270, at 140-141 (1985)). Similarly, the Attorney General argues that the Department recently found that the presence of redundant plant no longer providing benefits to ratepayers constitutes an extraordinary circumstance (Attorney General Reply Brief at 5, citing D.T.E. 01-56, at 42-43).[12] The Attorney General contends that extraordinary circumstances may be found when plant is replaced by a major capital addition shortly after the end of the test year, thus warranting removal from rate base (Attorney General Reply Brief at 6).

Therefore, the Attorney General proposes that the Department reduce the Company's proposed plant in service by $1,033,889 and to increase accumulated depreciation by $639,216 (Attorney General Brief at 9, citing RR-AG-52). The Attorney General also proposes a corresponding reduction to test year depreciation expense associated with Sawyer I of $61,516 (id.).

b. Fitchburg

Fitchburg claims the Attorney General misconstrues regulatory precedent in his assertion that the status of Sawyer I renders it as neither used nor useful (Fitchburg Brief at 19). The Company claims that the Attorney General has incorrectly based his legal

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[12] The Attorney General distinguishes the Department's decision in NYNEX Price Cap, D.P.U. 94-50, at 298 (1995), which allowed plant that was only used at twelve percent of capacity and ultimately planned for replacement to remain in rate base, in that the Department found that the plant continued to remain used and useful (Attorney General Reply Brief at 4).

argument on the application of the "used and useful" standard to abandoned plant (Fitchburg Brief at 19, citing Attorney General Brief at 8). The Company contends that, in contrast, Sawyer I was in service during the test year, and that Fitchburg continues to incur significant costs in retiring this substation (Fitchburg Brief at 19; Fitchburg Reply Brief at 5).

The Company maintains that, in order to complete the upgrades to Sawyer II, it had to keep Sawyer I operating for a period of time after Sawyer II was initially placed into service (Fitchburg Brief at 20, citing RR-AG-52). Although Sawyer I was operating for a period of time in conjunction with Sawyer II, the Company argues that this dual operation does not give rise to a claim of extraordinary circumstances (id. at 20). Further, the Company argues that, unlike situations where a facility is abandoned because of pollution costs or where some other extraordinary event made the facility no longer cost-effective to run, the process of removing and retiring Sawyer I constitutes a normal substation retirement (id. at 21, citing Fitchburg Gas and Elect. Light Co. v. Dep't of Pub. Utils., 371 Mass. 881, 886-887 (1977)). Until Sawyer I is completely dismantled, the Company argues that it will be considered as in service and not retired (id. at 21).

In addition, Fitchburg argues that the Department does not apply a "known and measurable" standard of review for post-test year adjustments to rate base (id. at 20). Instead, the Company asserts the Department requires that post-test year adjustments to rate base must be unusual in nature and extraordinary in amount (id., citing D.P.U. 91-106/138; Kings Grant Water Company, D.P.U. 87-288, at 17 (1988); D.P.U. 1300, at 18; Fitchburg Reply Brief

at 5). Fitchburg argues that while the Department may reexamine the used and useful status of plant previously included in rate base, the Department would only conduct such an analysis if extraordinary circumstances were deemed to exist (id. at 20, citing Berkshire Gas Company, D.P.U. 92-210-B at 14 (1993)). The Company considers that, in this instance, the retirement of Sawyer I, a substation that is over 50 years old, and its replacement on the same site by Sawyer II is not unusual in nature (id. at 20).

Finally, the Company argues that the cost of the retirement is not extraordinary in amount, as the undepreciated cost in rate base is $394,673, or only 0.9 percent of the Company's total electric division rate base of $46,032,226 (id. at 21). The Company contends that the Department has found that even where only twelve percent of an asset was used and the company clearly stated its intention to retire the asset, the asset was still deemed used and useful in service to ratepayers and appropriate for inclusion in rate base (id. at 20, citing NYNEX Price Cap, D.P.U. 94-50, at 298 (1995)). Fitchburg argues that the Department has recognized the need for capital investment to accommodate future demand and has rejected attempts to penalize a regulated company for making those investments (id., citing D.P.U. 94-50, at 298). Moreover, the Company claims that its original investment in Sawyer I was prudent, and while the substation is now off-line, it has not yet been fully retired (id., citing RR-AG-52).

Fitchburg argues that, even if the Department were to accept the Attorney General's argument, the Attorney General's proposed adjustment is incomplete, incorrect, and inconsistent with proper accounting practice (id. at 21-22, citing 371 Mass. 881, 886-887;

Fitchburg Reply Brief at 5-6). According to the Company, if the Department were to treat Sawyer I as formally retired, a number of accounting adjustments would be necessary to recognize Sawyer I's retirement for ratemaking purposes, consistent with plant instruction No. 9 of the Uniform System of Accounts for Electric Companies (Fitchburg Brief at 23). First, the Company states it would have to credit plant in service by the original book value of Sawyer I of $1,033,889, with an offsetting debit entry of $1,033,889 to depreciation reserve (id.).[13] In doing so, Fitchburg argues that there would remain an undepreciated balance of $394,673 associated with Sawyer I, plus the estimated cost of removal, which the Company claims is approximately $600,000 (Fitchburg Brief at 22-23; Fitchburg Reply Brief at 6). In addition to these accounting adjustments, the Company states that its depreciation accrual rates for Account 362 - Station Equipment, would have to be increased in order to recognize the undepreciated balance associated with Sawyer I (Fitchburg Brief at 22).[14]

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[13] Fitchburg argues that the Attorney General's proposed depreciation reserve adjustment constitutes a double-counting of the accumulated depreciation (Fitchburg Brief at 22).

[14] The Company claims that record request AG-52 incorrectly identified the test year depreciation expense for Sawyer I as $61,516, by taking the original cost of the substation found in Account 362 and multiplying it by the 5.95 percent depreciation accrual rate for Account 364 - Distribution Poles, Towers, and Fixtures (Fitchburg Brief at 19). The Company asserts that the correct test year depreciation expense is $32,671 and is calculated by multiplying the original cost of the substation of $1,033,889 by the 3.16 percent depreciation accrual rate for Account 362 - Station Equipment (Fitchburg Brief at 19, citing Exh. FGE JHA-1 (electric), Sch. JHA-1, at 119)).

3. Analysis and Findings

For plant costs to be included in rate base, the expenditures must be prudently incurred, and the resulting plant must be used and useful in providing service to ratepayers. D.T.E. 98-51, at 9; D.P.U. 96-50 (Phase I) at 15; Boston Gas Company, D.P.U. 93-60, at 42 (1993); D.P.U. 85-270, at 60-107. The Department considers plant to be "used and useful" if the plant is in service and provides benefits to customers. D.T.E. 98-51, at 9; D.P.U. 96-50 (Phase I) at 15. In the absence of extraordinary circumstances, the Department normally does not allow the relitigation of the used or usefulness of plant once it has been included in rate base. D.P.U. 93-60, at 43; D.P.U. 92-210-B at 14.

Sawyer I remained operational for some months after Sawyer II was initially placed into service, but was taken off line on January 22, 2002,[15] and is scheduled to be dismantled during 2002 and 2003 (RR-AG-52 (electric)). Therefore, Sawyer I is not in service, and is not expected to resume service. In short, the evidence in this case indicates that a permanent change has occurred at Sawyer Passway. The Company's actions have created an extraordinary circumstance. D.P.U. 93-60, at 43. Accordingly, the Department finds that the continued inclusion of Sawyer I in rate base is subject to review under the Department's used and useful standard.

Although the Company anticipates that Sawyer I will be dismantled sometime during 2002 or early 2003, it proposes to retain Sawyer I in rate base until the facility is physically

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[15] The fact that Sawyer I had to be kept active during the construction and activation of Sawyer II is not related to Sawyer I's present status.

retired (RR-AG-52 (electric)). Fitchburg contends that Sawyer I's undepreciated balance of $394,673 is not an extraordinary amount, and thereby does not warrant a post-test year adjustment. Replacement of old plant with large new plant additions is the kind of extraordinary circumstance where a post-test year adjustment is appropriate, even when the replacement is not to be expected to be completed until well after the end of the test year. See D.P.U. 85-270, at 140-141, n.21.

Accordingly, the Department finds that because Sawyer I is not in service and does not provide benefits to ratepayers, the facility is not used and useful. To include the Sawyer I in the Company's rate base would be inappropriate because that facility will not be in service when the rates approved in this proceeding are in effect. See D.P.U. 85-270, at 140-141. Therefore, the Department will reduce gross plant included in rate base by $1,033,889 and the accumulated depreciation reserve by $639,216.[16] The effect of these adjustments is to reduce the Company's electric rate base by $394,673.

Concerning the deferred income taxes associated with Sawyer I, the Company states that because it does not maintain tax records by individual plant unit, there is no identifiable deferred income tax reserve associated with Sawyer I (Exh. DTE 2-22). However, Fitchburg calculated what the deferred taxes would be, deriving a state and federal deferred tax reserve for the Sawyer Passway substation of $13,537, on a total gross book value of $3,039,758 (id.). The resulting ratio of 0.445 percent, when applied to the gross book value of Sawyer I, or

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[16] The depreciation expense associated with Sawyer I is addressed in Section V(G) of this Order.

$1,033,889, produces an accumulated deferred income tax reserve associated with Sawyer I of $4,601 (Exh. DTE 2-22; RR-AG-52). This method provides a reasonable proxy for the deferred income tax reserve attributable to Sawyer I. Accordingly, the Department reduces the Company's deferred income tax reserve by $4,601.

Concerning the undepreciated balance associated with Sawyer I of $394,673, as well as the estimated dismantling costs, these balances will be charged against the Company's reserve for accumulated depreciation, consistent with the Uniform System of Accounts for Electric Companies. The Company will have an opportunity to recover these expenses through future depreciation accruals in the same manner as other removal costs.

B. Princeton Paper Deposit

1. Introduction

On January 20, 1998, Fitchburg entered into a service agreement with Princeton Paper Company, LLC ("Princeton Paper") under the Company's Energy Bank Service[17] tariffs then in effect, M.D.P.U. Nos. 86 and 87 (Exh. AG-1, at 4). As part of this agreement, Princeton Paper contributed a total of $893,495 in advance funding payments intended to compensate Fitchburg for the cost of local facilities needed to serve the additional system load associated with Princeton Paper (Exhs. AG-1, at 5; AG 7-55). Payments were to be made in fixed

[17] Energy Bank Service was a tariffed service of the Company, introduced in 1995 and intended for new commercial and industrial customers with electric loads of at least 200 kilowatts, or existing commercial and industrial customers increasing their electrical load by at least 200 kilowatts. The Company terminated these special tariffs by Department authorization dated May 30, 2001.

installments between December 1997[18] and September 1998, with service to Princeton expected to begin on or about October 1, 1998 (Exh. AG-1, at 4, 9).

In addition to the advance funding payments, Princeton Paper agreed to provide the Company with a security deposit for electrical service equal to an estimated two months' billings totaling $863,160 (id. at 5). Instead of requiring a separate payment from Princeton Paper, the service agreement provided that the security deposit would be taken from the advance funding payments made by Princeton Paper (id.). Upon completion of the construction intended to meet Princeton Paper's additional load, and once Princeton Paper's expansion became operational, Fitchburg would refund to Princeton Paper the difference between the advance funding payment ($893,495) and the calculated security deposit ($863,160), for a net refund of $30,335 (id.).

On June 7, 1999, Harnischfeger Industries and its affiliates, including Princeton Paper, filed for bankruptcy protection with the Bankruptcy Court for the District of Delaware (Exh. AG-2, at 12). In order to secure its claims as a creditor to Princeton Paper, Fitchburg filed a pre-petition claim of $2,361,600 on February 4, 2000 (Exh. AG-1, at 2-3; Tr. 1, at 38-39).[19] Of this amount, $893,495 was identified by the Company as a secured claim in the form of the advance funding payment (Exh. AG-1, at 2-3). Thereafter, the Company entered into settlement negotiations with Princeton Paper as to its bankruptcy proof of claim (Tr. 11,

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[18] This initial installment was actually paid in April of 1998 (RR-AG-1, at 41 (supp.)).

[19] On May 8, 2000, Fitchburg amended its total pre-petition claim against Princeton Paper to $6,284,246 (Exh. AG-2, at 2-3; Tr. 1, at 39).

at 1306). On November 22, 2000, the Bankruptcy Court approved a settlement between Fitchburg and Princeton Paper ("Princeton Settlement"), which, among other provisions, reduced the Company's pre-petition claim to $3,212,631 and allowed Fitchburg to set the $893,495 deposit off against this claim (Exh. AG-2, at 8, 34; Tr. 1, at 42-43). The Company applied $681,333 of the advance funding payment towards the outstanding gas and electric bills owed by Princeton Paper prior to the bankruptcy, and the remaining $212,162 was used to offset the Company's legal expenses and services provided by Unitil (Tr. 11, at 1308-1311; RR-AG-1).

2. Positions of the Parties

a. Attorney General

The Attorney General contends that the $893,495 in advance funding payments received by Fitchburg from Princeton Paper should be credited against the Company's electric rate base (Attorney General Brief at 6). With regard to Fitchburg's claim that it was appropriate to retain the advance funding payment as compensation for outstanding gas and electric bills and for legal fees incurred, the Attorney General argues that this treatment was never legally enforceable because the Company had failed to return the $893,495 deposit to Princeton Paper at the time of the bankruptcy (Attorney General Reply Brief at 2, citing Exh. AG-1 (Energy Bank Service contract, §§ 5.1-5.4)). The Attorney General argues that the Company should apply the proceeds of the Princeton Settlement towards the cost of the plant that Fitchburg installed to meet the needs of Princeton Paper, in order to prevent the Company from profiting at the expense of customers (Attorney General Brief at 7).

The Attorney General notes that the Company never submitted the Princeton Settlement to the Department for approval (Attorney General Brief at 6-7, citing Tr. 11, at 1312-1314). The Attorney General argues that the actions of the Bankruptcy Court do not bind the Department for ratemaking purposes, especially in circumstances where the utility itself did not file for bankruptcy and the Bankruptcy Court did not address the issue of the ratemaking consequences of its approval of the settlement with the Company (Attorney General Reply Brief at 3-4, citing D.P.U. 85-270, at 118-119) (accounting standards do not supercede the Department's duty to set just and reasonable rates).

The Attorney General also argues that the Company failed to appropriately disclose either its pre-petition claim against Princeton Paper or the existence of the Princeton Settlement during the proceedings in D.T.E. 99-118 (Attorney General Brief at 6, citing Tr. 1, at 36-45; Exh. AG-2, at 13, 43). The Attorney General contends that the Company was more familiar with the details of the Princeton Settlement than it revealed during the proceedings in D.T.E. 99-118 (Attorney General Brief at 6, n.9; Attorney General Reply Brief at 3, n.3, citing D.T.E. 99-118 (Tr. 2, at 297-298)). The Attorney General states that, by the time of the evidentiary hearings in D.T.E. 99-118, the bankruptcy judge had already issued an order approving the Princeton Settlement, resulting in a reduction to Fitchburg's pre-petition claim and a reduction or elimination of the demand charges owed by Princeton Paper (Attorney General Reply Brief at 3). The Attorney General argues that the Department should consider what he characterizes as the Company's "lack of candor" concerning Princeton Paper when

evaluating Fitchburg's testimony in this proceeding (Attorney General Brief at 6, n.9; Attorney General Reply Brief at 3).

b. Fitchburg

Fitchburg argues that the Attorney General's proposal is without merit, as is his assertion that the Company failed to disclose the existence of its pre-petition claim or the Princeton Settlement (Fitchburg Brief at 16). First, the Company argues that the equipment installed to serve the needs of Princeton Paper remains in use for existing customers, and should be paid for by these customers instead of requiring that these costs be absorbed by the Company (id. at 17). Second, the Company states that, under the Bankruptcy Code, if a creditor and a debtor have mutual, valid pre-petition claims, the creditor can set off his pre-petition debt against the assets claimed by the bankruptcy estate (id., citing 5 Collier on Bankruptcy (Matthew Bender) ¶ 553.510 (15th ed.)). Fitchburg maintains that the funds put up by Princeton Paper were a "construction deposit" required under the Energy Bank Service agreement to ensure that Princeton Paper came on line as a customer and that the funds were to be returned to Princeton Paper once service commenced at that location (Fitchburg Brief at 17, citing Exh. AG-2 (Energy Bank Service agreement at 1, ¶ 5.2.1)). The Company claims that the only way that it was able to offset the construction deposit against the pre-petition amounts owed was because the Bankruptcy Court determined that the equipment deposit was a security deposit that could be set-off under § 553 of the Bankruptcy Code (Fitchburg Brief at 17, citing Tr. 11, at 1310-1311; Exh. AG-1 (Service Agreement at ¶ 5.3)).

The Company asserts that, contrary to the Attorney General's interpretation of the Princeton Settlement, it was not an order which altered in any way either the demand charges or the other terms of service for electric and gas service between Fitchburg and Princeton Paper, other than to confirm that Fitchburg's charges for service would have administrative expense priority pursuant to §§ 503 and 507 of the Bankruptcy Code (Fitchburg Reply Brief at 3, citing D.T.E. 99-118 (Tr. 2, at 297-298); Tr. 11, at 1310-1311; Exh. AG-2). The Company argues that the Princeton Settlement did not reduce or eliminate the then-applicable demand charges billed to Princeton Paper for service (Fitchburg Reply Brief at 3, citing Exh. AG-2). The Company urges the Department to reject the Attorney General's efforts to "recast" its testimony in D.T.E. 99-118 (Fitchburg Reply Brief at 3-4). According to the Company, the relevant testimony in D.T.E. 99-118 was focused on Fitchburg's continuing obligation to serve Princeton Paper post-bankruptcy and the possibility of recoveries from this customer (Fitchburg Reply Brief at 4, citing D.T.E. 99-118 (Tr. 2, at 297-298)).

3. Analysis and Findings

The $893,495 in payments from Princeton Paper was intended to cover the cost of constructing additional facilities necessary to meet Princeton Paper's load, including two transformers and associated equipment (Exhs. AG-1, at 8; AG 7-55). Thus, the Attorney General argues that the payments represent a refundable construction advance, which under Department practice is considered an offset to rate base. See Hingham Water Company, D.P.U. 1590, at 10-11 (1984).

In this case, Fitchburg's service agreement with Princeton Paper under the Energy Bank Service tariffs expressly provided that, upon completion of construction, the Company was authorized to retain $863,160 of the $893,495 advance funding payment to provide Fitchburg with a security deposit to ensure future payments by Princeton Paper (Exh. AG-1, at 5; Tr. 11, at 1305). This retention would have occurred shortly after the completion of construction in the normal course of business. The intervening bankruptcy filing by Princeton Paper, however, placed the disposition of Princeton Paper's assets, including the $893,495 advance funding payment, under the control of the Bankruptcy Court. The portion of Fitchburg's pre-petition claims against Princeton Paper with respect to the disposition of the $893,495 advance funding payment, was resolved on November 22, 2000, with the Bankruptcy Court's approval of the Princeton Settlement.

Fitchburg's books for the year 1999 included the advance funding payment as a customer deposit in Account 252 - Customer Deposits (Fitchburg 2001 Annual Return to the Department at 113 (electric); Tr. 1, at 46). As of the end of 2000, the construction advance from Princeton Paper had been applied against the outstanding gas and electric bills of Princeton Paper, as well as the Company's collection costs (RR-DTE-1; Tr. 1, at 46). Therefore, in the test year, there was no advance construction payment or security deposit associated with Princeton Paper on the books of the Company (Tr. 1, at 46). While the Department recognizes that the actions of a bankruptcy court do not control ratemaking treatment, in this case the evidence supports a finding that Fitchburg's treatment of $863,160

in advance funding payments conformed to the requirements of the Energy Bank Service tariffs and service agreement with Princeton Paper and, therefore, was appropriate.

Concerning the remaining balance of $30,335, this amount would have, in the normal course of business, been returned to Princeton Paper under the terms of the Energy Bank Service agreement (Exh. AG-1, at 5). However, the bankruptcy filing, combined with Princeton Paper's arrearages to the Company, placed the treatment of this balance in question. The Princeton Settlement resolved this issue in the Company's favor, in that Fitchburg was allowed to apply this balance against the arrearages owed by Princeton Paper. There is nothing in the record to indicate that the Company acted imprudently in its efforts to collect the amounts owed from Princeton Paper. The ability of Fitchburg to apply this portion of the advance equipment payment against Princeton Paper's outstanding bills served to reduce the Company's uncollectible write-offs for 2000. As with the $863,160 intended to revert to a security deposit, the evidence supports a finding that Fitchburg's treatment of the remaining balance of $30,335 was appropriate.

Turning to the Attorney General's arguments that Fitchburg improperly failed to reveal the existence of the Princeton Settlement in D.T.E. 99-118, the Department has reviewed the transcripts from D.T.E. 99-118 and compared them with the evidentiary record in this proceeding. On June 1, 2001, the second day of evidentiary hearings in D.T.E. 99-118, Fitchburg was asked whether the Company had received an order from the bankruptcy judge or the trustee regarding the obligations of Princeton Paper under the Energy Bank Service contract. D.T.E. 99-118 (Tr. 2, at 297). The Company's response discussed Fitchburg's

ongoing obligations to serve Princeton Paper during the pendency of the bankruptcy proceedings, but did not reveal the existence of the Princeton Settlement.[20] Id. The Princeton Settlement had been approved by the Bankruptcy Court in November 2000, over six months before the Company's testimony in D.T.E. 99-118 and almost ten months before the Department's final Order in D.T.E. 99-118. A more complete response would have revealed the existence of the Princeton Settlement. It is within the authority of the Department to evaluate the material facts and the influence of such facts on the matter under adjudication. Western Massachusetts Electric Company, D.P.U. 88-123-B at 58 (1991). We take this opportunity to remind the Company that it is under a continuing obligation to amend seasonably its responses to discovery, direct examination, and cross-examination if it later

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[20] The Attorney General asked:

> At some point in time did Fitchburg receive some type of order from the bankruptcy judge or the trustee regarding the obligations of Princeton Paper under that contract?

The Company's witness responded:

> Let me tell you what I'm aware of. As a utility, typically in bankruptcy the judge will order that the utility continue to provide service to a bankrupt customer, and under that order, the payments to the utility take first priority. So the utility continues to provide service to the bankrupt customer, and the bankrupt customer continues to pay the utility for that service under a special provision of the bankruptcy law that allows that relationship to continue. That's in contrast to other vendors, who may just elect to discontinue providing service to a customer because they're bankrupt. As a utility, we don't have that option.

D.T.E. 99-118 (Tr. 2, at 297).

obtains information that the response was incorrect or incomplete, or if the response, though correct when made, is no longer true or complete. 220 C.M.R. § 1.06(6)(c)(5).

C. Princeton Road Transformer

1. Introduction

In 1996, the Company placed into service a substation at Princeton Road ("Princeton Road") with one 12/16/20 MVA transformer dedicated to serving the needs of Princeton Paper, and a 7.5/10.5 MVA transformer intended to meet general Company load, including feeding two other Fitchburg substations (Exhs. FGE MHC-1, at 20 (electric); DTE 2-26; AG 7-55). A second 12/16/20 MVA transformer ("Princeton Road Transformer") was installed in 1998 to meet additional load required by Princeton Paper (Exh. DTE 2-26).

During the course of the proceedings in D.T.E. 99-118, the Attorney General argued that, if the Department were to eliminate the Company's test year revenues associated with Princeton Paper from revenue requirements, then Princeton Paper could no longer be considered a customer of Fitchburg. D.T.E. 99-118, at 24. In that event, the Attorney General argued that the Princeton Road Transformer should be eliminated from rate base on the grounds that it was no longer used and useful in providing service to ratepayers. Id. While the Department found that the Princeton Road Transformer was still being used to serve Newark, and thus denied the Attorney General's proposal, we placed Fitchburg on notice that the prudence of its investment in the Princeton Road Transformer would be examined in its next G.L. c. 164, § 94 rate case. Id. at 25.

2. Positions of the Parties

Fitchburg contends that Princeton Road was not constructed solely to serve Princeton Paper, but also to serve additional Fitchburg customers on two other circuits (Fitchburg Brief at 14, citing Exhs. FGE MHC-1, at 20 (electric); AG 7-54). At the time Princeton Road was originally placed into service, the Company states that the portion of the substation dedicated to meet the needs of Princeton Paper was intended to serve a load of 11.5 MVA on a firm basis, and 17.0 MVA on an interruptible basis (id., citing Exh. AG 7-55). In 1998, the Company states that Princeton Road was expanded to accommodate the Princeton Road Transformer in order to meet the increased demand of Princeton Paper (id. at 14-15, citing Exhs. FGE MHC-1, at 22 (electric); AG 7-54). However, Fitchburg notes that, by 1999, Princeton Paper was experiencing financial difficulties, and eventually went into bankruptcy and liquidation (id. at 15).[21]

Fitchburg maintains that, during the time Princeton Paper was seeking bankruptcy protection, the Company's engineers were seeking cost-effective ways of increasing capacity in the Princeton Road area because of overall industrial load growth (id., citing Exh. FGE MHC-1, at 21 (electric)). According to the Company, preliminary analysis indicated that a second substation would be required in the Princeton Road vicinity to serve this additional load (id.). The Company contends that once it became clear that Princeton Paper would cease operations, Fitchburg's engineers were able to reconfigure the system and move load from

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[21] The Company's actions in response to the bankruptcy of Princeton Paper are detailed in Section III(B), above.

constrained areas on the Company's system to the Princeton Road substation (id.). As a result of this system reconfiguration, the Company claims it was able to avoid the need for another substation (id., citing Exhs. FGE MHC-1, at 21 (electric); DTE 2-25).

The Company maintains that Princeton Road now feeds the demand created by other industrial customers in that area, including the Montachusett Industrial Park, 231 Industrial Park, and other industrial, commercial, and residential customers, as well as customers on River Street (id., citing Exhs. FGE MHC-1, at 21 (electric); DTE 2-24; DTE 2-25). Fitchburg also contends that Princeton Road enhances system reliability by acting as a backup to the Company's River Street substation, which had experienced a failure in the past year (id., citing Exhs. FGE MHC-1, at 22 (electric); DTE 2-24). Moreover, Fitchburg also states that the transformer at Princeton Road that was no longer required had been used to replace a failed transformer at the Company's West Townsend substation, thereby saving the cost of a replacement transformer (id., citing Exhs. FGE MHC-1, at 22 (electric); DTE 2-23; DTE 2-30).

The Company argues that any excess transformer capacity that existed at the time Princeton Paper ceased operations that was not needed to meet the demand of Newark has been now fully absorbed (id. at 16). According to Fitchburg, Princeton Road now carries a load in excess of 20 MVA, a larger amount of distribution load than of any of the Company's other substations, representing more than 20 percent of the Company's total system load (id., citing Exhs. FGE MHC-1, at 22 (electric); DTE 2-26).

Fitchburg concludes that its actions with regard to both the construction of Princeton Road and the Company's actions after the closing of Princeton Paper were prudent, and that the costs of these facilities should remain in rate base (id. at 16). No other parties discussed the Company's prudency concerning the Princeton Road Transformer.

3. Analysis and Findings

a. Standard of Review

For costs to be included in rate base, the expenditures must be prudently incurred and the resulting plant must be used and useful to ratepayers. D.P.U. 85-270, at 20. The prudence test determines whether cost recovery is allowed at all, while the used and useful analysis determines the portion of prudently incurred costs on which the utility is entitled to a return. Id. at 25-27.

A prudence review involves a determination of whether the utility's actions, based on all that the utility knew or should have known at the time, were reasonable and prudent in light of the extant circumstances. Such a determination may not properly be made on the basis of hindsight judgments, nor is it appropriate for the Department merely to substitute its own judgment for the judgments made by the management of the utility. Attorney General v. Dep't of Pub. Utils., 390 Mass. 208, 229 (1983). A prudence review must be based on how a reasonable company would have responded to the particular circumstances and whether the company's actions were in fact prudent in light of all circumstances which were known or reasonably should have been known at the time a decision was made. D.P.U. 93-60, at 24-25; D.P.U. 85-270, at 22-23; Boston Edison Company, D.P.U. 906, at 165 (1982). A review of

the prudence of a company's actions is not dependent upon whether budget estimates later proved to be accurate but rather upon whether the assumptions made were reasonable, given the facts that were known or that should have been known at the time. Massachusetts-American Water Company, D.P.U. 95-118, at 39-40 (1996); D.P.U. 93-60, at 35; D.P.U. 84-145-A at 26.

While the Department acknowledged in D.T.E. 99-118 that Princeton Road was then currently used and useful in providing service to Fitchburg's ratepayers, we made no determination as to whether the Company's installation of the second transformer at Princeton Road was reasonable and prudent in light of what the Company knew or should have known at the time. D.T.E. 99-118, at 25. Therefore, the Department here reviews the Company's actions concerning the installation of the Princeton Road Transformer, as well as those actions taken by the Company after Princeton Paper sought bankruptcy protection on June 7, 1999.

b. Pre-Princeton Paper Bankruptcy

As a distribution company, Fitchburg has the obligation to provide distribution service to all customers, present and future, within its service territory. G.L. c. 164, § 1B(a); see also Report to the General Court Pursuant to Section 312 of the Electric Restructuring Act, Chapter 164 of the Acts of 1997 on Metering, Billing, and Information Systems, at 32 (December 29, 2000). In 1998, Princeton Paper was planning an expansion and required approximately 15 megawatts ("MW") of power on a nearly continuous basis (Exh. AG-1,

at 4). As the electric supplier to Princeton Paper with an obligation to serve, Fitchburg was required to take reasonable measures to meet the customer's requirement, including the installation of the Princeton Road Transformer (id. at 8-9).

While the Company made the necessary investments to serve the needs of Princeton Paper, Fitchburg also took measures to secure the total cost of construction, by requiring Princeton Paper to provide advance funding and to enter into an amended second mortgage granting the Company a security interest in the assets covered under the second mortgage (id. at 5-6). There is no evidence that, in 1998, the Company knew, or should reasonably have known, that Princeton Paper would be seeking bankruptcy protection that following year. Rather, the Department considers the requirements of advance funding and an amended mortgage by Fitchburg to have been standard business practice in dealing with a large industrial customer with the demand characteristics of Princeton Paper.

The Department finds that the Company acted prudently in its initial decision to install a second dedicated transformer at Princeton Road in order to meet the demand of Princeton Paper. Accordingly, the Department finds that the Company's actions with respect to the Princeton Road Transformer before Princeton Paper's bankruptcy in 1999 were prudent.

c. Post-Princeton Paper Bankruptcy

Princeton Paper's bankruptcy filing in June 1999 occurred during a time of industrial load growth in other parts of Fitchburg's service territory and capacity constraints at a number

of its substations (Exhs. FGE MHC-1, at 21 (electric); DTE 2-25, Att. 1, at 3).[22] The Company was also examining the appropriate transformer capacity for both Princeton Road and Sawyer Passway (Exhs. FGE MHC-1, at 21 (electric); DTE 2-25). While Fitchburg initially believed that this additional load would require a second substation in the Princeton Road vicinity, the Company ultimately determined that it would be more cost-effective to reconfigure its distribution system so that load could be shifted from constrained areas to Princeton Road and its newly-available capacity (Exh. FGE MHC-1, at 21 (electric)). While Princeton Road did have excess capacity as a result of Princeton Paper's bankruptcy and termination, this capacity was almost immediately placed into use to meet the Company's various capacity constraints (id.). Moreover, the 7.5/10.5 MVA transformer used to meet general system demand at Princeton Road was used to replace a failed transformer at the Company's West Townsend substation, at a cost savings over the purchase of a new transformer of about $220,000 (Exhs. FGE MHC-1, at 22 (electric); DTE 2-23; DTE 2-30; Tr. 3, at 327-330). As a result of these system reconfigurations, Princeton Road presently serves about 230 customers in the Princeton Road and River Street areas and carries a load exceeding 20 MVA (Exhs. FGE MHC-1, at 21-22 (electric); DTE 2-24; DTE 2-25; DTE 2-29). Additionally, Princeton Road provides additional system reliability in its role as a backup to the River Street substation (Exh. FGE MHC-1, at 22 (electric); DTE 2-24).

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[22] Because of significant lead times of about 20 months for medium-power transformers, the planning horizon for new load additions can be as long as two years (Exh. DTE 2-25, at 3).

The Department finds that the Company acted prudently in its evaluation of its capacity constraints and system deficiencies, as well as its identification of those resources available to address these concerns, including Fitchburg's existing facilities. As a result of this process, Fitchburg was able to remedy its capacity constraint problems in a cost-effective manner. Accordingly, the Department finds that the Company's actions with respect to the Princeton Road Transformer after Princeton Paper's bankruptcy in 1999 were prudent.

d. Conclusion

The Department finds it was reasonable and prudent of Fitchburg to install the Princeton Road Transformer in 1998. The installation was intended to meet the expanded requirements of a customer to whom the Company was obligated to provide distribution service. G.L. c. 164, § 1B(a). The Department also finds that the Company's actions with regard to the Princeton Road Transformer, following Princeton Paper's 1999 bankruptcy, were prudent and reasonable.

D. Capital Budgeting Process

1. Introduction

In D.T.E. 98-51, at 13, the Department allowed the costs of capital projects with significant budget overages to be included in Fitchburg's rate base, stating "that a majority of the projects in question relate to [gas] main replacements that are required by the Department under 220 C.M.R. § 113 . . . [and that] . . . the remaining projects were also necessary to

maintain the safety and reliability of the Company's distribution system."[23] However, noting that the Company failed to explain the overages in those capital additions, the Department directed the Company to "review the capital budgeting process that resulted in such overages, diagnose the root cause of failure in its capital budgeting process, and present the findings of this review with a plan for correction . . . ." D.T.E. 98-51, at 13-14. Pursuant to this directive, the Company reviewed its capital budgeting process and filed a report with the Department on April 16, 2002 ("Capital Budgeting Report").[24]

2. Positions of the Parties

The Company assessed its pre-1998 budgeting process and reviewed the basic framework for authorization, including the use of blanket authorizations for expenditures under $10,000 (Capital Budgeting Report at 3). In addition, the Company reviewed its policies and system of controls for supplemental authorizations, which are issued when actual costs exceed authorized amounts, to ensure that such authorizations provide accurate and timely explanation for the cost deviations (id. at 3). Based on a review of its capital expenditure data,[25] the

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[23] In D.T.E. 98-51, at 10-11, the Department noted that 16 capital projects with expenditures greater than $50,000 had final budgets that were more than 25 percent higher than the authorized amounts.

[24] The Department incorporates by reference the Capital Budgeting Report pursuant to 220 C.M.R. § 1.10(3).

[25] Appendix M of Fitchburg's annual service quality report (March 15, 2002) (1) describes each project with an expenditure in excess of $50,000 for the period 1992 through 2001, (2) indicates the location and scope of each project, and (3) states the applicable federal and state laws that each project was intended to comply with (RR-DTE-33, at 64-77). The same information for the capital expenditures from 1998 through 2001 is shown in Exhibit FGE MHC-3 (gas) (Tr. 10, at 1238).

Company claimed that supplemental authorizations were necessary because overages from its capital budget most frequently result from conditions that could not be reasonably anticipated during the planning process (id. at 3, citing RR-DTE-33, at 64-77 (Fitchburg annual service quality report, App. M (March 15, 2002); Tr. 10, at 1237-1238).[26] As a result of its review, Fitchburg formalized a revised capital budgeting policy effective January 1, 2002, which superceded a previous policy (id. at 3-4, citing Capital Budgeting Report, Att. A; Tr. 10, at 1234-1236).[27]

Fitchburg's capital budgeting process involves two basic steps in developing, authorizing, and approving capital budgets and projects. First, a comprehensive capital budget is prepared and approved annually, where each major project, including minor projects covered by blanket authorizations, is separately identified with a "budgeted amount" (RR-DTE-37; Tr. 10, at 1236-1237). Second, prior to undertaking construction or incurring costs, each project's budgeted amount is reviewed to verify whether the estimate for the initially budgeted amount is reasonable (RR-DTE-37; Tr. 10, at 1236-1237). Once this second

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[26] The Company stated that items that could not be reasonably anticipated during the planning process include, among other things, hitting a ledge during excavation, emergency repairs on hard crust earth, and excessive vehicular traffic in the vicinity of construction sites (Capital Budgeting Report at 3, Att. A; Tr. 10, at 1237-1238).

[27] The Company stated that, after the Department issued its Order in D.T.E. 98-51, Fitchburg immediately initiated a review and began implementing enhancements to its existing policy on its capital budgeting process (Tr. 10, at 1234-1235). However, the Company indicated that it was only able to formalize its revised policy on January 1, 2002 (id. at 1233-1234).

review is completed, the project is authorized and approved with an "authorized amount," which could be different from the initially budgeted amount (RR-DTE-37).

The Company claimed that, based on this two-step capital budgeting process and using more recent data, the difference between the total amount budgeted compared with the total amount actually expended was 0.3 percent (id. at 2, Att. at 3). The difference between the total amount authorized and the total amount actually expended was 4.3 percent (id.).[28] The Company considers its revised capital budgeting process to be a more formal application of the standards that were being adopted in the field after the Department's Order in D.T.E. 98-51 (Tr. 10, at 1234-1235). No other parties addressed the Company's capital budgeting process.

3. Analysis and Findings

The Department recognizes that construction budget estimates may, on occasion, be less than actual construction costs for reasons outside the control of the utility, such as soil conditions and vehicular traffic near the construction site (Capital Budgeting Report at 3, Att. A; Tr. 10, at 1237-1238). In D.T.E. 98-51, at 14-15, the Department identified deficiencies in Fitchburg's capital budgeting process and directed the Company to take corrective measures. Fitchburg responded by implementing a new capital budgeting process. Based on our review of the Capital Budgeting Report, the Department finds that the

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[28] The Company performed its calculations based on capital projects with costs of at least $10,000 begun or completed during the test year (Exh. AG-1-19; RR-DTE-37). Distribution maintenance and improvements, as well as cast iron main replacements, accounted for 79 percent of the Company's gas division capital expenditures during 2000, and 74 percent during 2001 (RR-DTE-36). These percentages are projected to remain at approximately the same levels for 2002 through 2006 (id.).

Company's two-step capital budgeting process provides satisfactory assurances that construction costs will be monitored. Therefore, we find that the Company has complied with our directives in D.T.E. 98-51.

E. Purchased Gas and Purchased Power Working Capital Allowance

1. Introduction

Although Fitchburg collects its purchased gas working capital costs through the Cost of Gas Adjustment Clause ("CGAC") rather than through base rates, the Company must present an updated calculation of purchased gas working capital costs as part of a base rate proceeding. See Berkshire Gas Company, D.P.U. 90-121, at 234-237 (1990). The Company proposes to use the results of its updated purchase gas lead-lag study to calculate purchased gas working capital costs recovered through the CGAC. Fitchburg also proposes to recover in its electric distribution rates $1,671,141 for the cost of cash working capital for purchased power (Exh. FGE Update[29] (electric), Att. 1, at 8). More specifically, Fitchburg seeks recovery of cash working capital for default service power supply contracts, standard offer service power supply contracts, and external transmission charges (Exh. FGE MHC-1 (electric), Sch. MHC- 4, at 6).

Gas and electric utilities have historically been required to perform lead-lag studies for their purchased fuel and power expenses. D.P.U. 1300, at 23-25. Fitchburg conducted

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[29] On November 18, 2002, the Hearing Officer granted Fitchburg's motion to admit schedules updating the functional allocations for the Company's gas and electric divisions. These schedules have been admitted as Exhibits FGE Update (gas), and FGE Update (electric), respectively.

separate lead-lag studies for its purchased gas and its purchased power expenses (Exhs. FGE MHC-1, at 22 (gas); FGE MHC-4 (gas); FGE MHC-1, at 26 (electric); FGE MHC-4 (electric)).

a. Purchased Gas Lead-Lag

The Company calculated the purchased gas expense lead period (i.e., the number of days between its payment to its gas supplier and the customer's payment to Fitchburg for that gas) for each supplier based on the following four components: (1) lead period; (2) average days lead; (3) weighted-cost; and (4) weighted days lead (Exh. FGE MHC-4, at 254 (gas)). When combined, these factors yield a weighted average purchased gas expense lead of 36.44 days (Exh. FGE MHC-4, at 256 (gas)).

The Company calculated the purchased gas revenue lag factor (i.e., the number of days between the customer's receipt of gas service and Fitchburg's collection of the monies for that gas) for firm and interruptible customers based on the following four components: (1) receipt of gas service to meter reading; (2) meter reading to billing; (3) billing to collection; and (4) collection to receipt of available funds (Exh. FGE MHC-4, at 253 (gas)). The sum of these revenue lag components is 69.48 days for firm gas customers and 42.85 days for interruptible gas customers, for an overall weighted average purchased gas revenue lag of 68.87 days (Exh. FGE MHC-4, at 253, 255 (gas)). Subtracting the 36.44 day lead in payment for purchased gas costs from the revenue lag of 68.87 days results in a proposed net lag period of 32.43 days (Exh. FGE MHC-4, at 254-255 (gas)).

b. Purchased Power Lead-Lag

The Company calculated the purchased power expense lead period (i.e., the number of days between its payment to its electric supplier and the customer's payment to Fitchburg for that electricity) for each supplier based on (1) the average days in the month that energy is received, and (2) the additional period up to the wire payment or bank clearing date (Exh. FGE MHC-1, at 28 (electric)). When added together, these factors yield a weighted average expense lead of 40.51 days (Exh. FGE MHC-4, at 250 (electric)).

The Company calculated the purchased power revenue lag factor (i.e., the number of days between the customer's receipt of electric service and Fitchburg's collection of the monies for that power) based on the following four steps: (1) receipt of electric service to meter reading; (2) meter reading to billing; (3) billing to collection; and (4) collection to receipt of available funds (Exhs. FGE MHC-1, at 29 (electric); FGE MHC-4, at 247 (electric)). The sum of these lag components is 58.25 days (Exh. FGE MHC-4, at 247 (electric)). Subtracting the 40.51 day lead in payment for purchased power costs from the revenue lag of 58.25 days results in a proposed net lag period of 17.74 days (Exh. FGE MHC-4, at 249 (electric)).

2. Positions of the Parties

a. Attorney General

The Attorney General argues that the Company's proposed lag days for meter reading to billing and billing to collection are inflated and inconsistent with industry standards (Attorney General Brief at 13). First, the Attorney General contends that there should not be any meter to billing lag when using the accounts receivable method for determining the

revenue lag (id.). The Attorney General argues that, because the billing lag starts when the meter reading function ends, and ends when the collection lag begins, the billing lag begins with the download of the daily-read information to the Company's computer system (id.). The Attorney General argues that as the meter read information is processed into billing information and bills are generated, the Company should also record a corresponding accounts receivable (id., citing Exh. AG 7-8). The Attorney General argues that because the collection lag begins with the creation of the accounts receivable, the creation of the bill should, in an efficient accounting system, start the collection lag period (id. at 13). The Attorney General maintains that Fitchburg's meter read download, the bill generation and the accounts receivable recognition can and do occur on the same day (Attorney General Brief at 13, citing Exh. AG 7-8; Attorney General Reply Brief at 9). Therefore, the Attorney General argues that the Company's meter reading to billing lag should be reduced to zero (Attorney General Brief at 13).

Second, the Attorney General argues that the Department should deny the Company's proposed two-day collection to receipt of funds revenue lag (id. at 15). The Attorney General states that this issue was addressed in Commonwealth Electric Company, D.P.U. 90-331, at 22 (1991), where the Department found that the check clearing lag is zero because the payer is obligated to have the funds in the bank account when the check is written (id.).

Finally, the Attorney General contends that the Company's proposal to determine revenue lag by dividing accounts receivables in any month by the amount of cash received for that same month is flawed (id. at 14). The Attorney General argues that the Company's

method assumes Fitchburg recovers the total balance of accounts receivable, when it in fact does not (id.). The Attorney General claims that because accounts receivable has embedded in it accounts that will never be recovered by the Company, Fitchburg's method artificially inflates the days of collection lag (id. at 14-15). The Attorney General argues that this flaw is critical because, in the test year, the Company delayed writing off a substantial portion of its receivables until the end of December (id. at 15, citing Tr. 15, at 1914-1915). Therefore, the Attorney General argues that the Department should reject the Company's proposed collection lag and instead use the 44.3 day collection lag identified with the survey method employed by Fitchburg in D.T.E. 98-51 (id. at 14-15, citing Exh. DTE 6-34).

b. Fitchburg

The Company argues that it appropriately included a "meter reading to billing" component of 2.43 days and a "collection to receipt of available funds" component of two days in its purchased power and purchased gas revenue lags (Fitchburg Brief at 35). The Company asserts that the 2.43 day meter reading to billing component is appropriate given the necessary work of bill preparation, including checking the data for validity, accuracy, and consistency, as well as the actual preparation of the invoices (id., citing D.T.E. 01-56, at 52).

The Company also maintains that a two day period from the collection to receipt of available funds is appropriate given modern banking practices (id. at 35). Fitchburg argues that checks deposited in its bank account may take several days to clear and such funds are not available for its use until the checks have cleared (id. at 35-36). In addition, the Company argues that new approaches in the banking and cash management field have made customers

relatively indifferent to the date payments are mailed to the utility company or the date that the company deposits their payment, with customers instead relying on cash reserve lines or a controlled disbursement accounts to meet their necessary banking obligations (Fitchburg Reply Brief at 7-8, citing Exh. DTE 2-35). To the extent customers have funds in their accounts at the time a check is written, Fitchburg argues that customers may be receiving the benefit of these funds up to the point that the check clears the account in the form of interest or reduced service fees (Fitchburg Brief at 35; Fitchburg Reply Brief at 7-8).

In addition, the Company maintains that its method for determining the revenue lag does not overstate the number of lag days. Fitchburg argues that the method it used is substantially the same method approved by the Department in the Berkshire Gas Company's recent rate proceeding (Fitchburg Brief at 36, citing D.T.E. 01-56, at 52).

3. Analysis and Findings

a. Purchased Gas

With respect to the Attorney General's argument that there should not be any meter to billing lag when using the accounts receivable method for determining the revenue lag, the Department rejected a similar argument in D.T.E. 01-56. In D.T.E. 01-56, at 51, the Department approved a meter reading to billing lag component, finding that critical processes are undertaken during this period in the bill preparation process. The Department stated that, although the installation of the automated meter reading system reduces the time requirement for the conversion of raw meter data into a company's accounting system, it is not the sole component to the bill processing operation. Id. at 51-52. For these same reasons, the

Department will permit the Company to include its proposed meter to billing lag in its purchased gas lead-lag study.

With respect to the Company's proposal to add a two-day check-clearing component covering the period from collection to actual receipt of funds, the Department has previously rejected the idea that payment lags should be based on the assumption that payment is made on the date a check clears. Commonwealth Electric Company, D.P.U. 89-114/90-331/91-80 Phase One at 20-24 (1991). While the Company urges the Department to reconsider this precedent based on advances in banking practices in the last ten years, Fitchburg has provided insufficient evidence to support its claim that payers are no longer required to have the funds in their bank account when the check is written. The Department will, therefore, reduce the Company's proposed collection to receipt of funds revenue lag period to zero days.

Finally, we agree with the Attorney General's argument that the Company's proposed method for determining its revenue lag overstates the number of revenue lag days. The Company's method artificially inflates the days of collection lag by assuming the total balance of accounts receivable is recouped, when it in fact accounts receivable has embedded in it accounts that will never be recovered. Rather than replace the proposed collection lag with the 44.3 day lag employed by the Company in D.T.E. 98-51, as suggested by the Attorney General, the Department will adjust the accounts receivable figures provided in the lead-lag study to remove bad debt expense from total accounts receivable for gas sales. For purchased gas, the removal of $651,984 in test year bad debt expense results in a reduction in payment lag days from 49.84 days to 48.99 days. In total, these adjustments lead to an overall

reduction from 69.48 lag days to 66.63 lag days for firm sales customers, a weighted average for firm and interruptible sales customers of 66.08 lag days, and a net purchased gas lag period of 29.64 days.

b. Purchased Power

The Department has acknowledged that distribution companies incur default related costs that are recovered from all customers through the companies' base rates. Pricing and Procurement of Default Service, D.T.E. 99-60-B at 16-19 (2000). Further, we have stated that in principle, all costs of providing default service should be unbundled and included in the rates paid by default service customers so as not to act as a barrier to competition. Id. at 19. Consistent with the Department's policy on cost causation, we find that Fitchburg may not include cash working capital costs for purchased power in its distribution rates. Therefore, the Company's allowance for cash working capital will be reduced by $1,671,141. The Company may seek recovery of cash working capital for its purchased power for each of the purchased power services (i.e., standard offer service and default service) in a separate proceeding.[30] This approach is consistent with our treatment of cash working capital for purchased gas. See Boston Gas Company, D.P.U. 88-67 (Phase One) at 40-43 (1988).

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[30] The Department makes no findings in the current proceeding with respect to the propriety of the amount or the calculation of the Company's proposed purchased power cash working capital allowance. If the Company seeks recovery in a separate proceeding, Fitchburg must file a lead lag study to support its purchased power cash working capital request.

F. Cash Working Capital Allowance

1. Introduction

In their day-to-day operations, utilities require funds to pay for expenses incurred in the course of business, including operating and maintenance ("O&M") expense. These funds are either generated internally by a company or through short-term borrowing. Department policy permits a company to be reimbursed for the costs associated with the use of its funds for the interest expense incurred on borrowing. D.P.U. 96-50 (Phase I) at 26, citing Western Massachusetts Electric Company, D.P.U. 87-260, at 22-23 (1988). This reimbursement is accomplished by adding a working capital component to the rate base computation.

Non-fuel working capital needs have been determined through either the use of a lead-lag study or a 45-day O&M allowance. In the absence of a lead-lag study, the Department has generally relied on the 45-day convention as reasonably representative of O&M working capital requirements. D.P.U. 88-67 (Phase One) at 32-33. However, improvements in cash management techniques since the early 1900s have prompted calls for full O&M lead-lag studies. See D.P.U. 88-67 (Phase One) at 32-33; D.P.U. 96-50 (Phase I) at 26-27. In its last gas base rate case, Fitchburg was directed "to propose an alternative to using the 45-day lag in its next rate case or otherwise show that proposing an alternative would not be cost-effective." D.T.E. 98-51, at 16. The Department addressed this issue again in Fitchburg's recent G.L. c. 164, § 93 proceeding, where the Company was reminded of the Department's directives in D.T.E. 98-51. In addition, the Company was directed in its next G.L. c. 164, § 94 rate proceeding to "conduct a lead-lag study or undertake a reasonable,

cost-effective alternative to a lead-lag study in order to address the continued validity of the 45-day convention in Fitchburg's case or to propose a different interval." D.T.E. 99-118, at 30, n.23.

For its gas division, Fitchburg proposes to include a test year adjusted cash working capital allowance of $709,758 in its rate base calculation, corresponding to a 45-day cash requirement of $5,756,924 in non-purchased gas O&M expenses (Exh. FGE Update (gas), Att. 2, at 8). For its electric division, Fitchburg proposes to include a test year adjusted cash working capital allowance of $987,522 in its rate base calculation, corresponding to a 45-day cash requirement of $8,009,899 in non-purchased power O&M expenses (Exh. FGE Update (electric), Att. 1, at 8).

2. Positions of the Parties

a. Attorney General

The Attorney General argues that the Company did not follow the Department's directives to consider cost-effective alternatives to a lead-lag study that produce lower working capital requirements than the 45-day convention (Attorney General Brief at 10-11). The Attorney General argues that the Company's attempt to show that a lead-lag study would not be cost-effective does not satisfy the Department's directives (Attorney General Reply Brief at 8). In addition, the Attorney General disputes the Company's assertion that a lead-lag study is not cost-effective. The Attorney General contends that, after adjusting for flaws in the Company's analysis, there is at least a 63 percent probability that the lower-bid study will provide cost savings for ratepayers (id.). Therefore, the Attorney General argues that the

Company should not be allowed to recover any cash working capital associated with its non-fuel O&M expenses (Attorney General Brief at 12).

b. Fitchburg

Fitchburg did not conduct a lead-lag study for non-fuel O&M expense in this proceeding. Rather, it argues that such a study would not be cost-effective for its ratepayers and instead proposes to continue using the 45-day working capital convention for O&M expense (Exh. FGE MHC-1, at 26 (electric)). Fitchburg argues it satisfied the Department's directives in D.T.E. 99-118 and D.T.E. 98-51 by conducting an analysis of the cost-effectiveness of conducting a lead-lag study. The Company received two bids to conduct a lead-lag study, one for $193,000 and another for $60,000 (Exh. DTE 2-38). Using the higher bid,[31] the Company performed a cost-effectiveness analysis[32] that it argues shows that there is less than a 50 percent probability that a lead-lag study will benefit ratepayers (Exh. FGE MHC-1, at 32-34 (electric); Fitchburg Brief at 32-34). Based on the results of its cost-benefit analysis, Fitchburg proposes to continue using the 45-day working capital convention.

3. Analysis and Findings

If properly designed, lead-lag studies are an appropriate method to determine cash working capital. However, lead-lag studies are complex and costly to undertake. The costs

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[31] The Company had concerns about the lower bidder's ability to conduct and support a lead-lag study in an adjudicatory proceeding (Tr. 3, at 370-372).

[32] The model used by Fitchburg in its cost-effectiveness analysis considered the likelihood that the lead-lag study would produce a lower combined lag than the 45-day convention, thereby reducing the amount of cash working capital necessary for inclusion in rates (Exh. DTE 2-38).

associated with a lead-lag study are often out of proportion to the contribution of cash working capital to a company's rate base. Therefore, for practical reasons, the 45-day convention was developed in the early part of the last century as a simplified formula to value the amount of cash working capital to be included in rate base. Recently, however, the Department has expressed concern that the 45-day convention no longer provides a reliable measure of a utility's working capital requirements. D.T.E. 98-51, at 15, citing D.P.U. 96-50 (Phase I) at 27.

Not wanting to require expensive lead-lag studies, the Department has encouraged utilities to consider and offer other cost-effective methods to produce lower working capital requirements than the 45-day convention. Id. at 15. The Department went further in D.T.E. 98-51 and directed Fitchburg to propose an alternative to the 45-day convention. Fitchburg was, however, also given the option to show that "proposing an alternative" would not be cost-effective. Id. at 16. The Department amplified this direction in D.T.E. 99-118, at 30, n.23, when it instructed the Company (1) to conduct a lead-lag study, or (2) to undertake a reasonable, cost-effective alternative to a lead-lag study. Addressing this same issue in its last rate case, Boston Gas Company proposed and the Department accepted a 42-day lag[33] as an alternative means of determining its working capital needs. D.P.U. 96-50 (Phase I) at 26-27.

In the present case, Fitchburg neither conducted a lead-lag study, nor undertook an alternative to a lead-lag study. Instead, the Company undertook an analysis to prove a premise

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[33] Boston Gas Company did not conduct a lead-lag study, but instead cut three days from the 45-day convention to account for "operational changes." D.P.U. 96-50 (Phase I) at 26-27.

that the Department has already accepted, namely that lead-lag studies, because of their cost, are unlikely to be cost-beneficial for ratepayers. By failing to conduct a lead-lag study or an alternative to a study as directed, Fitchburg failed to address the Department's concerns about the continued validity of the 45-day convention.

To address the Company's failure to undertake a study or an alternative, the Attorney General recommends that the Department deny recovery of cash working capital. This is an extreme remedy that is not warranted by the facts of this case. By conducting a cost-benefit analysis, Fitchburg made some attempt to address the concerns raised by the Department in D.T.E. 98-51 and D.T.E. 99-118. However, because Fitchburg failed to properly follow the Department's direction, and because the record supports the use of an alternative, the Company will not be permitted to apply the 45-day convention.

A reasonable alternative to a lead-lag study can be derived from the record evidence in this case. As part of this proceeding, the Company conducted a partial survey of expense lags among a national sample of ten utilities. Combining the expense lags of the survey group with Fitchburg's weighted average revenue lead results in a mean net lead-lag of 40.2 days (RR-DTE-64; Fitchburg Reply Brief at 7). However, we have found that the purchased gas lead-lag study that Fitchburg used to derive its weighted average revenue lead (1) improperly contains a two-day check-clearing component covering the period from collection to actual receipt of funds, and (2) is overstated with respect to bad debt (see Section III(E)(3), above). Removing the two day check-clearing component as well as adjusting to remove test year bad

debt expense from total accounts receivable from Fitchburg's weighted average revenue lead results in a mean net lead-lag of 37.35 days.

Our approval of a 37.35-day allowance in this case does not necessarily signal that a 37.35-day convention will become Department policy. In certain circumstances, a lead-lag study may actually be cost-effective. Therefore, the Department will require each gas and electric distribution company in its next base rate proceeding, to conduct a lead-lag study where cost-effective.[34] Where a lead-lag study is not cost-effective, each company must propose a reasonable alternative to a lead-lag study to develop a different interval.

As a final matter, the Company included in its gas and electric O&M expenses a Unitil Service amortization expense of $1,477,661,[35] of which $590,621[36] was allocated to Fitchburg (Exh. MHC-5, at 3-4 (electric)). The Department has found that noncash items should not normally be included in the cash working capital calculation. Western Massachusetts Electric Company, D.P.U. 88-250, at 20 (1990). Amortization is such a non-cash expense. Id. Therefore, the Department will remove $158,930 from gas O&M expense and $304,944 from

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[34] In this context, "cost-effective" means that the normalized cost of the study (i.e., the cost of the study divided by the normalization period used in the utility's rate case) is less than the reduction in revenue requirements that would occur using the results of the lead-lag study in lieu of the 45-day convention.

[35] Amortization expense includes the amortization of the Unitil Service lease and the amortization of several utility business computer systems (Exh. DTE 4-22).

[36] The $590,621 allocable to Fitchburg is derived by multiplying the $1,477,661 by 39.97 percent (Exh. FGE MHC-5, at 268-269 (electric)).

electric O&M expense for the calculation of cash working capital.[37] As a result of these adjustments, the Department will permit Fitchburg to include a cash working capital allowance of $460,168 in its gas division rate base calculation, corresponding to a 37.35-day cash requirement for $4,496,961 in non-purchased gas O&M expenses. The Department will permit Fitchburg to include a cash working capital allowance of $718,733 in its electric division rate base calculation, corresponding to a 37.35-day cash requirement for $7,019,854 in non-purchased power O&M expenses.

G. Accumulated Deferred Income Taxes

1. Introduction

Deferred income taxes arise because of differences between the tax and book treatment of certain transactions, including the use of accelerated depreciation and the treatment of certain operating expenses for income tax purposes. D.P.U. 99-118, at 33; Essex County Gas Company, D.P.U. 87-59, at 63 (1987). Because deferred income taxes represent a cost-free source of funds to the utility, they are typically treated as an offset to rate base. D.P.U. 87-59, at 29; AT&T Communications of New England, D.P.U. 85-137, at 31 (1985); Boston Edison Company, D.P.U. 1350, at 42-43 (1983).

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[37] The adjustment to remove amortization expense was calculated as follows. First, the $590,621 amortization expense was allocated 35.92 percent, or $212,151 to gas, and 64.08 percent, or $378,470 to electric (Exh. FGE MHC-1 (electric), Sch. MHC-5, at 3-4). Multiplying $590,621 by a capitalization ratio of 21.46 percent (common expense capitalization divided by total common capitalization), a capitalization amount of $126,747 was derived (id.). This capitalization amount was then allocated 41.99 percent, or $53,221 gas and 58.01 percent, or $73,526 electric (id.). Subtracting the capitalization from the allocated amortization expense produces an adjustment to O&M expense for gas of $158,930 and for electric of $304,944.

2. Deferred Income Taxes Associated With Accrued Revenues

a. Introduction

The Company accrues revenues for book purposes in connection with its accounting for the undercollection of standard offer service and default service costs for its electric division, and the undercollection of gas costs recoverable through the CGAC for its gas division (Tr. 13, at 1580). Because the Internal Revenue Service permits taxpayers to deduct the accrued revenues from book income in computing taxable income, the tax payment on these revenues is deferred (Tr. 13, at 1581). As of the end of the test year, this accrued revenue deduction produced accumulated deferred income taxes of $1,828,166 associated with the Company's gas operations and accumulated deferred income taxes of $4,390,088 associated with the Company's electric operations (Exhs. FGE Update (gas), Att. 2, at 43; FGE Update (electric), Att. 1, at 39-40). Because these amounts were attributable to energy supply service, Fitchburg excluded them from its total accumulated deferred income taxes in this proceeding (Exhs. FGE Update (gas), Att. 2, at 43; FGE Update (electric), Att. 1, at 39-40; Tr. 13, at 1580-1581).

b. Positions of the Parties

i. Attorney General

The Attorney General argues that the deferred income taxes associated with the accrued revenues represent an interest-free loan to the Company (Attorney General Brief at 19). He states that the Company does not use these accumulated deferred income taxes to reduce either

the gas or electric division rate bases in this proceeding or to calculate the carrying charges included in energy supply rates (id. at 18-19).

The Attorney General distinguishes the treatment of deferred income taxes in this case with the allocation of generation-related deferred income taxes in D.T.E. 99-118. He notes that while ratepayers were made whole for generation-related deferred income taxes through the Company's transition charge, Fitchburg has no rate base or investment to credit against standard offer service or default service, thereby allowing the Company's shareholders to receive the benefit of the deferred income taxes associated with accrued revenues (Attorney General Reply Brief at 23-24). Therefore, the Attorney General concludes that the accumulated deferred income taxes associated with accrued revenues should be applied towards reducing the Company's gas and electric rate bases (Attorney General Brief at 18-19; Attorney General Reply Brief at 24-25).

ii. Fitchburg

The Company acknowledges that Department precedent mandates that all accumulated deferred income taxes be deducted from rate base (Fitchburg Brief at 39, citing D.P.U. 87-59, at 63). The Company states that, as a result of the rate unbundling brought about by electric restructuring, the Department requires the portion of accumulated deferred income taxes associated with generation and gas supply functions to be allocated out of the total deferred income tax balance. Thus, the Company argues that only the portion of the total accumulated deferred income tax balance associated with distribution operations remains as a rate base offset (Fitchburg Brief at 40, citing D.T.E. 99-118, at 40; D.P.U. 87-59, at 63). Fitchburg

maintains that its accumulated deferred income taxes associated with accrued revenues are the result of the over- and under-collection balances from the Company's energy-related reconciliation mechanisms (Fitchburg Reply Brief at 8, citing Exhs. FGE MHC-1 (gas), Sch. 11; FGE MHC-1 (electric), Sch. 11). The Company reasons that because these accrued revenues are not predictable in level or year-to-year amount, the associated deferred income taxes are not a reliable or guaranteed source of funds to Fitchburg, and should not be deducted from rate base (Fitchburg Reply Brief at 8).

c. Analysis and Findings

The year-end balance of deferred income taxes represents a cost-free source of funds to the utility, and is thus typically treated as an offset to rate base. D.P.U. 87-59, at 29; D.P.U. 85-137, at 31; D.P.U. 1350, at 42-43 . However, the Department also has a general policy of matching recovery of tax benefits and losses to the recovery of the underlying expense with which the tax effects are associated. D.P.U. 89-114/90-331/91-80 Phase One at 29; Massachusetts Electric Company, D.P.U. 89-194/195, at 66 (1990). For example, if an expense has been deferred on the utility's books, the deferred income taxes associated with the expense are excluded from the accumulated deferred income tax balance, because ratepayers have not been burdened with the underlying costs. D.P.U. 89-114/90-331/91-80 Phase One at 29-30. Similarly, the Department has also allowed adjustments for deferred income taxes associated with cancelled plant, whereby the deferred income taxes associated with the plant are removed from the deferred income tax balance. See Western Massachusetts Electric Company, D.P.U. 89-255, at 18 (1990); Boston Edison Company, D.P.U. 160, at 11 (1980).

In this case, Fitchburg removed the accumulated deferred income taxes associated with accrued gas and electric revenues from its total deferred tax balances because of their association with energy supply costs that are no longer provided on a bundled basis (Exhs. FGE Update (gas), Att. 2, at 43; FGE Update (electric), Att. 1, at 39-40; Tr. 13, at 1580-1581). This adjustment was made to ensure that only balances applicable to the distribution function, as distinct from the Company's gas supply and generation functions, would be deducted from rate base. Because Fitchburg's gas supply and generation costs have been unbundled from rates, all related costs, including deferred income taxes, are appropriately assigned to these functions. See Fitchburg Gas and Electric Light Company, D.T.E. 97-115/98-120, at 38-39 (1999). Therefore, the Department finds that the Company has appropriately adjusted its test year balance of accumulated deferred income taxes associated with accrued gas and electric revenues.

Nevertheless, the Department acknowledges the Attorney General's concern that Fitchburg would have access to cost-free capital in the form of deferred income taxes associated with accrued revenues, and thus gain a benefit at the expense of ratepayers. In order to ensure that the benefits associated with deferred income taxes are realized by ratepayers, the Department directs the Company to apply the benefits produced by its deferred tax balances arising from accrued gas revenues as an offset against the carrying charges associated with CGAC over- and under-collections. Additionally, the Department directs the Company to apply the benefits produced by its deferred tax balances arising from accrued electric revenues as an offset against the carrying charges associated with standard offer

service and default service. See Boston Edison Company, D.P.U./D.T.E. 97-95, at 95 (2001).

3. Deferred Income Taxes Associated With CIAC

a. Introduction

Contributions in aid of construction ("CIAC") represent cash deposits or advances that a utility receives from customers for the purpose of funding construction requirements particular to the customer taking gas or electric service (Tr. 12, at 1467-1468; Tr. 14, at 1712-1713). As of the end of the test year, Fitchburg had on its books $269,185 in CIAC for its gas division and $176,123 in CIAC for its electric division, in the form of refundable construction advances (Exhs. AG 5-9 (gas); AG 7-9 (electric)).[38]

Although CIAC are a deduction from rate base, CIAC also represent taxable income to the Company (Tr. 14, at 1713). Fitchburg does not increase, or "gross-up," the required CIAC level from customers to provide for associated income taxes (id. at 1722). Instead, the Company pays the income taxes and books this expense to Account 190 - Accumulated Deferred Income Taxes, thereby reducing Fitchburg's total accumulated deferred income taxes and correspondingly increasing its rate base (id. at 1707, 1714-1715). In this way, the Company recovers the tax expense over the depreciable life of the property that was funded by the CIAC (id. at 1713). Therefore, the Company included $154,247 in its gas rate base and $370,407 in its electric rate base by deducting these balances from the respective deferred income tax reserves (Exhs. FGE MHC-1 (gas), Sch. MHC-11; FGE MHC-1 (electric),

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[38] Refundable customer advances are a form of CIAC that is refunded to the customer upon the completion of construction. Section III(H)(1), below.

Sch. MHC-11).

b. Analysis and Findings

Fitchburg's accounting treatment of CIAC-related income taxes results in a decrease to the deferred income tax reserve, thereby increasing rate base. Therefore, the Company's CIAC-related income taxes are presently being paid for by ratepayers as a whole, not by the individual customers requiring additional facilities (Tr. 14, at 1715-1716, 1722). The costs of these types of projects, where a customer has a need for additional equipment beyond those provided at no charge in the Company's line extension policies, should be borne by the customer responsible for those costs. See, e.g., Riverdale Mills Corporation, D.P.U. 85-130, at 12 (1985); Cooney v. Southern Berkshire Power and Electric Company, D.P.U. 7968 (1947). These additional costs should not be passed through to ratepayers, whether directly in the form of higher O&M expenses, or indirectly through a higher rate base. Accordingly, the Department will reduce Fitchburg's proposed gas rate base by $154,247 and its proposed electric rate base by $370,407.

H. Refundable Construction Advances/Unclaimed Funds

1. Introduction

Refundable customer advances represent advances made by customers to cover the cost of constructing new facilities required to serve the customer, but unlike the case with CIAC, are refunded to customers upon the completion of construction. D.P.U. 1590, at 10. As of the end of the test year, the Company had on its books $269,185 in refundable customer

advances for its gas division and $176,123 in refundable customer advances for its electric division (Exhs. AG 5-9 (gas); AG 7-9 (electric)).

In addition, as of the end of the test year, Fitchburg had on its books $1,900 in unclaimed funds (Exhs. AG 5-10 (gas); AG 7-10 (electric)). The Company stated that unclaimed funds generally consist of uncashed checks to customers for returned security deposits or final credit balances, with one small vendor check to the Lunenburg Water District (RR-AG-29).

2. Positions of the Parties

a. Attorney General

The Attorney General states that Department precedent requires utilities to deduct cost-free sources of capital, including refundable construction advances and unclaimed funds, from rate base (Attorney General Brief at 16-17, citing D.P.U. 85-270, at 139-140; Eastern Edison Company, D.P.U. 1580, at 46 (1984); D.P.U. 1350, at 32). The Attorney General contends that the Company failed to deduct either its refundable construction advances or its unclaimed funds from rate base (Attorney General Brief at 16-17; Attorney General Reply Brief at 6-7).

b. Fitchburg

The Company concurs with the Attorney General's position that customer-supplied cost-free capital, such as refundable construction advances and unclaimed funds, should be treated as an offset to rate base (Fitchburg Reply Brief at 9). Therefore, the Company accepts the Attorney General's proposed reductions of $269,185 to Fitchburg's gas rate base and

$176,123 to its electric rate base (id. at 9). Fitchburg incorporated these adjustments in its revised cost of service schedules (Exhs. FGE Update (gas), Sch. MHC-4; FGE Update (electric), Sch. MHC-4).

Concerning its unclaimed funds balance, Fitchburg proposes that this amount be allocated between its gas and electric operations based on the results of its gas and electric common cost allocation study, using a plant allocator that apportions 38.91 percent of plant-related items to gas operations and 61.09 percent of plant-related items to electric operations (Fitchburg Reply Brief at 9, citing Exhs. FGE MHC-1 (gas), Sch. MHC-4; FGE MHC-1 (electric), Sch. MHC-4). The Company incorporated these adjustments in its revised cost of service schedules (Exhs. FGE Update (gas), Sch. MHC-4; FGE Update (electric), Sch. MHC-4).

3. Analysis and Findings

Refundable construction advances are considered by the Department as an offset to rate base. D.P.U. 1590, at 10. Therefore, the Department accepts the Company's proposal to reduce its gas rate base by $269,185, and to reduce its electric rate base by $176,123 (Exhs. FGE Update (gas), Att. 2, at 7; FGE Update (electric), Att. 1, at 7).

The Department has deducted unclaimed funds from rate base in previous proceedings. D.P.U. 88-67 (Phase One) at 63; D.P.U. 85-270, at 139-140; D.P.U. 1350, at 32. Therefore, the Department accepts the Company's proposal to deduct unclaimed funds from both its gas and electric rate bases. The Department also accepts the Company's proposal to allocate this balance on the basis of the plant allocator derived in the gas and electric common cost study.

Accordingly, the Department accepts the Company's proposal to reduce its gas division rate base by $739 and its electric division rate base by $1,161 (Exhs. FGE Update (gas), Att. 2, at 7; FGE Update (electric), Att. 1, at 7).

I. Capitalized Lease

1. Introduction

Fitchburg's operations center ("Service Center") on John Fitch Highway in the City of Fitchburg is used for both gas and electric operations, and has been leased from Fitchburg Associates, an unaffiliated company, since 1980 (Exh. AG 5-42 (gas); RR-DTE-41, Att. 1; Tr. 3, at 382-383). The present lease, which took effect on February 10, 1981, provides for a primary term of 22 years from February 10, 1981 through January 31, 2003, and is subject to five five-year extended terms at the Company's option (Exh. AG 5-42 (gas); RR-DTE-41, Att. 1). The lease agreement provides that the current lease payment until January 31, 2003 is $44,771.40 per month and the extended term lease payment effective February 1, 2003 will be $22,499.91 per month (Exh. AG 5-42 (gas); Tr. 3, at 388-389).

For accounting purposes, the Company had been treating the Service Center lease as an operating lease until January 1, 1987 (RR-DTE-41, Att. 1, at 2). Effective January 1, 1987, Fitchburg adopted the provisions of Financial Accounting Standards Board No. 13, "Accounting For Leases" ("FAS 13") (id.).[39] As a result of this accounting change, the

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[39] Under FAS 13, if one of the following conditions apply at the time a lease is entered into, the lease must be classified as a capital lease: (1) the lease contains an automatic transfer of title; (2) the lease contains a bargain purchase option; (3) the term of the lease is equal to or greater than 75 percent of the estimated economic life of the asset; or (4) the present (continued...)

Service Center lease was retroactively reclassified as a capital lease, and the Company increased its utility plant by an amount equal to the initial capital value of the Service Center lease (Tr. 9, at 1068-1069). Therefore, in its initial filing, the Company proposed to include in rate base its test year-end balance of its net capitalized lease obligation associated with the Service Center of $1,949,973 (Exhs. FGE MHC-1 (gas), Sch. MHC-8; FGE MHC-1 (electric), Sch. MHC-8; Tr. 9, at 1063-1064). This adjustment consisted of $903,032 allocated to Fitchburg's gas division and $1,046,941 allocated to its electric division (Exhs. FGE MHC-1 (gas), Sch. MHC-8; FGE MHC-1 (electric), Sch. MHC-8).

During the hearings, Fitchburg stated that based on its review of its accounting for the Service Center lease and the Department's precedent to treat capitalized leases as operating leases for ratemaking purposes, the Company determined that the Service Center lease should be treated as an operating lease for ratemaking purposes (RR-DTE-41).[40] Therefore, Fitchburg proposes to (1) remove the capitalized lease amounts of $903,302 and $1,046,941 from the test year rate base of the Company's gas and electric divisions, respectively, (2) increase its test

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[39](...continued)
value of the minimum lease payments is equal to or exceeds 90 percent of the fair market value of the property (Exh. AG 7-72 (electric); RR-DTE-40, at 9).

[40] In D.T.E. 98-51, Fitchburg reported the balance of both Account 390.1 - Capitalized Lease, and Account 390.2 - Leasehold Improvements, as a single line item, which the Company explained had been intended to simplify the presentation (RR-DTE-42, citing D.T.E. 98-51, Exh. FGE LMB-2, Sch. 23, line 24). However, Fitchburg added that title for Account 390.2 had been inadvertently used to described the combined entry (RR-DTE-42; Tr. 10, at 1275-1276). The format of the exhibit had made it incorrectly appear that the entire balance represented leasehold improvements.

year cost of service by $116,959 and $208,650 for its gas and electric divisions, respectively, to account for the change in the ratemaking treatment of the lease from a capitalized lease to an operating lease, and (3) recompute the annual lease expense to take into account the reduced monthly lease expense that will take effect on February 1, 2003, resulting in a reduction of $69,820 and $132,824 to its test year cost of service for its gas and electric divisions, respectively (id.).[41]

2. Positions of the Parties

a. Attorney General

The Attorney General claims that, although the Company has agreed to remove its capitalized lease from rate base and treat the lease as an operating lease for ratemaking purposes, the Company failed to remove the amortization of the lease asset from its cost of service (Attorney General Reply Brief at 23).[42] The Attorney General asserts that the conversion from capitalized lease to an operating lease for ratemaking purposes requires that the Company remove all of the cost components of the capitalized lease, i.e., the interest expense and the amortization of the lease asset, and substitute for those costs the annual

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41 The pro forma adjustments to the anticipated reduction in monthly lease payments effective February 1, 2003 reduced the $116,959 gas test year rent expense to $69,820 and reduced the $208,650 electric test year rent expense to $132,824 (Exhs. FGE MHC-1 (gas), Sch. MHC-7-22; FGE MHC-1 (electric), Sch. MHC-7-20; RR-DTE-6 (rev.); RR-DTE-41).

42 In his initial brief, the Attorney General asserted that the Department should reject the Company's initial proposal to include the capitalized lease in rate base, because Fitchburg had made no investment or cash outlay in its capitalized lease that would justify a return (Attorney General Brief at 17-18).

operating costs of the lease (id.).[43] The Attorney General maintains that failure to remove the amortization of the lease asset would provide the Company with a double recovery of some of its lease expense (Attorney General Reply Brief at 23).

b. Fitchburg

The Company states that although it had included the Service Center lease in rate base as part of its initial filing, it later became aware that its proposed ratemaking treatment was inappropriate under Department precedent (Fitchburg Brief at 24, citing Tr. 8 at 1273-1277; RR-DTE-41; Nantucket Electric Company, D.P.U. 88-161/168, at 123-125 (1988); New England Telephone and Telegraph Company, D.P.U. 86-33-G (1986)). Fitchburg agrees with the Attorney General's position that it is inappropriate to include the capitalized lease in rate base (Fitchburg Brief at 24). The Company adds that a utility's rent expense represents an allowable cost qualified for inclusion in a utility's overall cost of service (id. at 93). The Company, therefore, requests that the Department accept its revised proposal to remove the Service Center lease from rate base and include the annualized lease expense in the Company's proposed operating expenses (id. at 24).

Fitchburg contends that the Attorney General is incorrect in his claim that the Company failed to remove the amortization expense associated with capitalized lease from the cost of service (Fitchburg Reply Brief at 6). The Company maintains that all appropriate adjustments to its test year cost of service have been made and provided in record request DTE-41

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[43] The Attorney General computed a reduction to test year gas cost of service of $75,347, and a reduction to test year electric cost of service of $136,301 (Attorney General Reply Brief, Atts. 6 (gas); 6 (electric)).

(id. at 6). The Company argues that because the amortization expense associated with the Service Center lease was not included in its proposed gas or electric test year cost of service, there is no need for the additional adjustment sought by the Attorney General (id.).

3. Analysis and Findings

Real property is eligible for inclusion in rate base only if the utility holds it in fee. Fitchburg leases the Service Center; therefore, the Company may not include the Service Center lease payments in rate base. D.P.U. 94-50, at 436; D.P.U. 88-161/168, at 43-46. At the same time, the Department recognizes that a utility's lease expense represents an allowable cost qualified for inclusion in its overall cost of service. D.P.U. 94-50, at 436; D.P.U. 85-270, at 183-187; D.P.U. 88-67 (Phase One), at 95-97; D.P.U. 95-118, at 42, n.24. The Company acknowledged that its initially-proposed ratemaking treatment of the lease was incorrect, and revised its proposed cost of service accordingly (Exhs. FGE MHC-1 (gas), Sch. MHC-7-22; FGE MHC-1 (electric), Sch. MHC-7-20; RR-DTE-6 (rev.); RR-DTE-41).

The Attorney General's proposed adjustment represents the annual principal payments associated with the Service Center lease (Exh. AG 1-21). The test year combined interest expense and principal expense of $537,257 ($185,728 gas plus $351,529 electric) is equal to the annual rental associated with the Service Center of $537,257, indicating that the principal is included as a component of the monthly rental charge for purposes of FAS 13 (Exhs. AG 1-21; AG 5-42 (gas)). The Department has reviewed the pertinent information contained in the revisions to record request DTE-6, and is satisfied that Fitchburg has properly

accounted for all the necessary adjustments to recognize the Service Center lease as an operating lease for ratemaking purposes. Specifically, as noted, the Company has demonstrated that the principal is included as a component of the monthly rental charge. Therefore, the Department finds the Company's proposed adjustments are appropriate and consistent with Department precedent, in that the adjustments both remove the Service Center from rate base and recognize the full annual lease expense in cost of service. D.P.U. 94-50, at 436-437. Accordingly, the Company's proposed cost of service adjustments for the Service Center lease are allowed.

IV. REVENUES

A. Unbilled Revenues

1. Introduction

The Company proposes to increase test year gas revenues by $137,958 in order to account for an adjustment to the recording of unbilled revenues on its accounting books for the test year (Exh. FGE MHC-1, at 30 (gas)). The Company explains that Fitchburg's test year unbilled revenue calculation of negative $98,543 is based upon the Company's historic practice of assuming that one-half of the following month's forecast sales represents energy consumed within the current month (Exh. AG 1-72). However, for ratemaking purposes, the Company proposes that unbilled revenues be determined based on actual billing data (Tr. 4, at 512-513). Fitchburg states that, after comparing actual calendar-month sales and transportation therms, actual billing-month sales and transportation therms, and the unaccounted for gas figure reported in CGAC filings, the Company concluded that a $137,958 increase to test year

revenue is required to raise the unbilled revenues book figure from negative $98,543 to a more accurate amount of $39,415 (Tr. 4, at 515).

2. Analysis and Findings

The Department finds the Company's proposal with respect to unbilled revenues to be reasonable. The Company's proposed method of identifying unbilled revenue amounts is preferable to the historic practice of relying upon assumptions concerning forecast sales because actual calendar-month sale and transportation therms, billing-month sales, and transportation therms, as well as lost and unaccounted for figures, are examined. The Department, therefore, allows Fitchburg to increase test year gas revenues by $137,958 in order to account for unbilled revenues.

B. Weather Normalization

1. Introduction

The Company calculated a weather normalization adjustment to represent the costs and revenues that would be expected under normal weather conditions (Exh. FGE JLH-1, at 4 (gas)). Fitchburg proposes to increase its test year sales volumes by 200,647 therms and correspondingly increase its test year gas revenue by $44,937 because of warmer than normal weather during the test year (Exh. FGE JLH-1, Sch. JLH-2, at 3 (gas); Tr. 5, at 548).[44]

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[44] The test year total actual billing cycle degree days is 6,329 and the total normal billing cycle degree days is 6,593, which means the test year was slightly warmer than normal (Exh. FGE JLH-1 (gas), Sch. JLH-8, at 16 (gas)). The Company defined the normal weather equal to the average degree days over the last 20 years (Exh. FGE JLH-1, at 5 (gas)).

In calculating its proposed weather normalization adjustment, the Company determined, for each rate class, the customers' actual billing use for base and heating load. Base load was computed as the average use per customer in the months of July and August, and heating load was computed as total sales less base load (Exhs. FGE JLH-1, at 7 (gas); FGE JLH-1, Sch. JLH-8 (gas); FGE JLH-1 (gas), Sch. JLH-2, 3, at 21-40; DTE 1-40).[45] The Company stated that monthly sensitivity to degree day variations were computed by dividing the heating load by the actual billing cycle degree days to derive the actual unit heating load per degree day for each rate class (Exh. FGE JLH-1, at 7 (gas)). This actual unit heating load per degree day was then multiplied by the temperature departure from normal to develop the weather sales volume adjustment for each rate class (Exh. FGE JLH-1, at 7 (gas)). Finally, the Company multiplied the volumetric weather sales volume adjustment by the rate in each of the current tariffs and summed the results for all rate classes to derive its proposed revenue adjustment (Exh. FGE JLH-1, at 7-8 (gas)).[46]

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[45] The Company stated that, after reviewing its initial filing, it identified a systematic spreadsheet error that resulted in a small distortion to the proper calculation to the base use (RR-DTE-14 (gas)). The Company indicated that, based on corrected schedules, such an error results in a very negligible amount, less than 0.04 percent of the total adjustment (id.).

[46] The proposed weather normalization adjustment of $44,937 is equal to the total adjustment of $47,490, less $2,553 representing the purchased gas portion of the adjustment (Exhs. FGE MHC-1, at 31 (gas); FGE JLH-2, at 13 (gas); Tr. 5, at 548-549). The total adjustment of $47,490 consists of $32,384, representing the volumetric portion of rates and $15,106, representing the demand portion of the G-43 and G-53 rates (Exhs. DTE 1-38; DTE 1-39; DTE 1-59).

2. Analysis and Findings

The Department standard for weather normalization of test year revenue is well-established. See D.P.U. 96-50 (Phase I) at 36-39; D.P.U. 93-60, at 75-80; Berkshire Gas Company, D.P.U. 92-210, at 194 (1993). The Department finds that the Company's method for calculating its weather normalization adjustment is consistent with Department precedent and accordingly approves Fitchburg's proposed weather normalization adjustment to increase its test year gas revenue by $44,937.

C. D.T.E. 99-118 Rate Reduction

1. Introduction

On October 18, 2001, as a result of an investigation pursuant to G.L. c. 164, § 93, the Department directed Fitchburg to reduce its electric distribution rates by $1,170,426. D.T.E. 99-118, at 93. The Company subsequently filed new rates in compliance with the Department's directive, which took effect as of that date.

The Company states that, because the rate reduction was in effect only for a portion of the test year, i.e., from October 18, 2001, through December 31, 2001, it is necessary to annualize the decrease to recognize a full year's operations under the lower rates in effect as of the end of the test year (Exhs. FGE MHC-1, at 36 (electric); DTE 2-2). Therefore, Fitchburg proposes to reduce its test year distribution revenues by $984,963 to eliminate the effect of the higher rates, which were in effect until October 17, 2001 (Exhs. FGE MHC-1 (electric), Sch. MHC-7-1; FGE MHC-2A).

2. Positions of the Parties

The Company states that, in order to ensure that its operating revenues incorporate all known and measurable changes to test year levels, a pro forma adjustment is necessary to recognize the rate reduction implemented in D.T.E. 99-118 (Fitchburg Brief at 41). No other parties addressed this issue.

3. Analysis and Findings

In determining the propriety of rates for the companies under its jurisdiction, the Department has consistently based allowed rates on test year data, adjusted for known and measurable changes. D.P.U. 1580, at 13-17. The selection of an historic twelve-month period of operating data as the basis for setting rates is intended to provide for a representative level of a company's revenues and expenses which, when adjusted for known and measurable changes, will serve as a proxy for future operating results. Id. The reduction in operating revenues made pursuant to D.T.E. 99-118 constitutes a known and measurable change to test year revenues. D.P.U. 88-67 (Phase One) at 77; Commonwealth Gas Company, D.P.U. 87-122, at 13 (1987); D.P.U. 87-59, at 3-4. Accordingly, the Company's proposed reduction in test year distribution revenues is allowed.

D. Newark America

1. Introduction

Newark America Company ("Newark") is a paper manufacturer that commenced operations during 2000 after purchasing the assets of Princeton Paper (Tr. 1, at 59-61).[47] During the test year, Newark was a relatively small industrial customer with a monthly demand of about 600 kilowatts ("KW"). See D.T.E. 99-118, at 15. However, after the test year, Newark's actual electric load and revenue significantly increased on a monthly basis (Exhs. AG 7-53 (electric) (confidential); Tr. 1, at 54; RR-AG-3 (confidential); RR-AG-58, at 3 (confidential)). At the time of evidentiary hearings, Newark's total load had increased to about ten MW representing approximately eleven percent of Fitchburg's total system demand (Tr. 1, at 49). The Department does not normally make adjustments for post-test year changes in revenues attributed to customer growth unless the change is significant. Massachusetts-American Water Company, D.P.U. 88-172, at 7-8 (1989); Bay State Gas Company, D.P.U. 1122, at 46-49 (1982).

2. Positions of the Parties

a. Attorney General

The Attorney General contends that the post-test year increase in Newark's load and revenues is significant and outside the normal ebb and flow of customer changes (Attorney General Brief at 45, citing Exhs. AG 7-53 (electric) (confidential), RR-AG-3 (confidential), RR-AG-58 (confidential); Attorney General Reply Brief at 11, citing RR-AG-58

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[47] For a detailed description of Newark's operations, refer to D.T.E. 99-118, at 14-15.

(confidential)). The Attorney General argues that, while Newark's revenues and loads may not be quite as large as those of its predecessor Princeton Paper, they still represent a 15-fold increase over test year levels, and therefore represent a large proportion of the Company's total load and revenues (Attorney General Reply Brief at 12, citing D.T.E. 99-118, at 18). Therefore, the Attorney General contends that the Company's test year revenues are unrepresentative of those levels to be expected in the future, and that an adjustment is necessary to develop a representative level of revenues (Attorney General Brief at 44, citing D.T.E. 99-118, at 16-20; D.P.U. 88-172, at 7-9 (1989); Western Massachusetts Electric Company, D.P.U. 558, at 70-72 (1981)).

In order to derive what he considers a representative adjustment of revenues attributable to Newark, the Attorney General proposes to subtract Newark's test year electric delivery service revenues from an annualized level of electric delivery service revenues, based on billings during the period May through August 2002 (Attorney General Brief at 44-45).[48] As part of his reply brief, the Attorney General offers a calculation based on the incremental KW and kilowatthour ("KWH") sales associated with Newark, allocated between peak and off-peak service based on Newark's most recent load pattern (Attorney General Reply Brief at 12, citing Exh. AG 7-53 (electric) (confidential); RR-AG-58 (confidential)). Application of the Company's test year rates to incremental KWs and KWHs results in a proposed post-test year revenue adjustment of $640,622 (Attorney General Reply Brief at 12).

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[48] The Attorney General states that he is using May through August bills as the basis for the annualization of Newark's revenues; however, in his supporting calculation he uses July through September bills.

b. Fitchburg

Fitchburg opposes any adjustment to Newark's test year revenues (Fitchburg Reply Brief at 11). The Company maintains that the factual situation in this proceeding is different than that presented in D.T.E. 99-118 because Newark is a continuing customer whose test year level of service is appropriately included in Fitchburg's operating revenues (Fitchburg Brief at 42). Fitchburg contends that the Attorney General's proposal is a misapplication of the Department's findings in D.T.E. 99-118 because, unlike Princeton Paper, Newark does not take service under a special contract and has loads that vary from month to month (Fitchburg Brief at 43, citing Exh. AG 7-53 (supp.) (electric) (confidential); RR-AG-3 (confidential)). According to Fitchburg, the Department's decision to adjust the Company's test year revenues in D.T.E. 99-118 was based on the "unique contractual arrangement" between the Company and Princeton Paper and the significant revenues associated with that contract (Fitchburg Reply Brief at 11).

Fitchburg argues that the Attorney General's proposal is inappropriate in light of the significant decrease in the Company's large general sales between 1999 and 2001 (Fitchburg Brief at 44). The Company argues that its large general sales are not expected to return to 1996 levels until 2006 (Fitchburg Brief at 44; Fitchburg Reply Brief at 10, citing Exh. DTE 2-9; Tr. 8, at 944). Fitchburg acknowledges that there has been a large increase in Newark's load in the most recent months, but contends that Newark's growth is not indicative of a trend in the Company's service territory (Fitchburg Reply Brief at 10, citing Exh. AG 7-6 (electric); Tr. 8, at 944-945). The Company argues that its test year revenue levels remain

representative, because the substantial increase in Newark's load does not result in a corresponding increase in its revenues (Fitchburg Reply Brief at 10). Finally, the Company argues that Newark has been considering the option of self-generation, which could potentially reduce Fitchburg's sales to this customer by about 40 percent (Fitchburg Brief at 43; RR-AG-3 (confidential)).

3. Analysis and Findings

The Department typically does not adjust test year revenues for post-test year changes in customer numbers that fall within the normal "ebb and flow" of customers. D.P.U. 1122, at 46-49. However, the addition or deletion of a customer or a change in a customer's consumption, either during or after the test year, that (1) represents a known and measurable increase or decrease to test year revenues, and (2) constitutes a significant adjustment outside of the ebb and flow of customers, warrants a departure from this standard practice. In cases where such a change in consumption or customers is found to exist, the Department may include a representative level of sales in deriving a utility's revenue requirement. D.T.E. 99-118, at 14-20; D.P.U. 88-172, at 7-9; D.P.U. 558, at 70-72.

In this case, Newark's sales have increased significantly outside the bounds of what we consider to be the normal ebb and flow of sales, especially when compared to Fitchburg's test year electric distribution revenues of $13,913,319 (RR-AG-58 (confidential); RR-AG-3 (confidential); Exhs. FGE MHC-1, at 2 (electric); AG 7-53 (electric) (confidential)). The Company's own 2003 projections of sales to Newark, even assuming co-generation beginning in September of that year, are annualized at $970,720, contributing almost seven percent of the

Company's base electric distribution revenues (RR-AG-58 (confidential)). While Newark's load and sales are not as large as those of Princeton Paper, they still constitute a large proportion of the Company's total load of 90 MW. As noted in D.T.E. 99-118, at 18, and observed by the Attorney General in his reply brief, the Newark increase is "significant to any reasonable observer."

The Department is not persuaded by the Company's claims that the contractual features of the Princeton Paper contract at issue in D.T.E. 99-118 justify a different outcome here. In D.T.E. 99-118, nearly all of the sales to Princeton Paper were based on demand charges established under a special contract with a minimum monthly demand provision. In that proceeding, the Attorney General presented a per KWH analysis intended to demonstrate that the loss of Princeton Paper as a customer did not materially affect the Company's overall sales. However, the Department determined that, because virtually all of Princeton Paper's monthly charges (96 percent) were recovered through the demand charge, a comparison of KWH sales failed to recognize the loss of significant revenues to the Company, even if KWH sales were increasing overall. D.T.E. 99-118, at 17. In this case, sales to Newark are based on the Company's G-3 tariff, which constitute a more traditional mix of demand and distribution charges in the rate structure. Consequently, monthly variations in KWH sales to Newark would have more of an effect on the total monthly billings to a G-3 customer than they would in the case of Princeton Paper. Therefore, Fitchburg's contract argument fails to recognize cases where increases (or decreases) in KWH sales have also resulted in increases (or decreases) in revenues to the utility.

Moreover, the fact that Newark may consider self-generation at some point in the future is an insufficient basis for disallowing a revenue adjustment here. See e.g., D.T.E. 99-118, at 18-19 (relying on projected construction of water treatment plant did not justify a revenue adjustment); D.P.U. 92-101, at 26 (rejecting proposed adjustment for customer addition that was not yet on line). Therefore, because the change in Newark's sales represents a known and measurable increase to test year revenues and constitutes a significant adjustment outside of the ebb and flow of customers, the Department will require an adjustment for post-test year changes in Newark's revenues.

To make this adjustment, the Department must determine a representative level of sales for Newark. In certain circumstances, the Department has used twelve months of actual data to annualize expenses for ratemaking purposes. See e.g., D.T.E. 01-56. However, due to the large increase in Newark's load in the most recent months, the Department finds that using the most recent twelve months of Newark's actual sales will not derive a representative level of expenses (Exh. AG 7-53 (electric) (confidential)).

The Attorney General urges us to adopt an incremental analysis comparing Newark's calendar year 2001 billing determinants, which are the amounts included in the test year, with the annualized three-month period, July through September 2002. The Department will accept the method proposed by the Attorney General, except, instead of using three-month data, we will use Newark's annualized KW and KWH consumption based on the most recent six-month period of available data. Based on our review of Newark's monthly sales and demand data, the Department finds that using April through September 2002 data to derive the adjusted test-year

billing determinants will result in a representative level of sales (Exh. AG 7-53 (electric) (confidential)). Application of the Company's test year rates to incremental KWs and KWHs results in an increase to test year electric revenues of $572,089.[49] The Department directs the Company, in its compliance filing, to re-run the cost of service study adjusting the test year billing determinants for the increase in Newark's sales and demand.

V. OPERATING EXPENSES

A. Payroll Expense

1. Introduction

During the test year, the Company's incurred a total payroll expense of $4,777,441, of which $2,855,728 was booked to O&M (Exh. DTE 1-25). Of this total O&M expense amount, $1,454,702 was attributed to gas operations and $1,401,036 was attributed to electric operations (Exh. DTE 1-25). The Company proposes to increase its test year gas division payroll expense by $107,379 and to increase its test year electric division payroll expense by $103,418 (Exhs. FGE MHC-1 (gas), Sch. MHC-7-3; FGE MHC-1 (electric), Sch. MHC-7-3; RR-DTE-6 (rev.) (gas), Sch. MHC-7-5; RR-DTE-6 (rev.) (electric), Sch. MHC-7-3).

Fitchburg's proposed gas division payroll increase consists of (1) a union wage increase of 3.1 percent that took effect on May 26, 2002, totaling $30,773, (2) a non-union wage and

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[49] Newark's annualized April through September 2002 sales and demand billing determinants were multiplied by the rate G-3 KWH base delivery charge and KWH base demand charge respectively, that were approved in D.T.E. 99-118. This method recognizes that the reduction in Newark's distribution charges resulting from D.T.E. 99-118 has already been incorporated into the Company's proposed D.T.E. 99-118 revenue adjustment. See Section IV(C), above.

salary increase of 4.9 percent that took effect on January 1, 2002, totaling $22,639, (3) a union wage increase of 3.0 percent scheduled to take place on June 1, 2003, totaling $30,704, and (4) a non-union wage and salary increase of 4.8 percent scheduled to take place on January 1, 2003, totaling $23,263 (Exh. FGE MHC-1, at 36-37 (gas); RR-DTE-6 (rev.) (gas), Sch. MHC-7-5). The Company's proposed electric division payroll increase consists of (1) a union wage increase of 3.1 percent that took effect on May 26, 2002, totaling $29,638, (2) a non-union wage and salary increase of 4.9 percent that took effect on January 1, 2002, totaling $21,804, (3) a union wage increase of 3.0 percent scheduled to take place on June 1, 2003, totaling $29,571, and (4) a non-union wage and salary increase of 4.8 percent scheduled to take place on January 1, 2003, totaling $22,405 (Exh. FGE MHC-1, at 40 (electric); RR-DTE-6 (rev.) (electric), Sch. MHC-7-3).

In support of its union payroll increases, Fitchburg performed a survey of hourly wage rates for the Company compared to 28 other gas and electric utilities in New England and New York (Exhs. FGE MHC-1, at 41 (gas); FGE MHC-1, at 44 (electric)). In support of its proposed non-union payroll expense, Fitchburg offers the results of a 1998 analysis performed with the assistance of the Hay Group ("1998 Hay Study") (Exhs. FGE MHC-1, at 37-38 (gas); FGE MHC-1, at 41 (electric); DTE 4-5 (confidential); RR-AG-7; Tr. 11, at 1350-1351). Based on both the Hay Group's own database of 1997 survey data and compensation surveys performed by other consulting groups, the 1998 Hay Study concluded that, while Fitchburg's noncash benefits were competitive in relation to those of other utilities and the general industry, both in New England and nationwide, the Company's cash compensation ranked near

the bottom in comparison to these markets (Exhs. FGE MHC-1, at 39 (gas); FGE MHC-1, at 41-42 (electric); DTE 4-5, at 12-14 (confidential)). The 1998 Hay Study recommended that the Company (1) implement salary ranges that were both closer to the median in the market and that would reward valuable employees, and (2) consider a broad-based cash incentive program (Exhs. FGE MHC-1, at 40 (gas); FGE MHC-1, at 42 (electric)).

Based on the results of the 1998 Hay Study, the Company elected to phase in higher base salary increases by 2004 in order to reach the median base pay level determined by the 1998 Hay Study, as well as implement a cash incentive program (Exhs. FGE MHC-1, at 40 (gas); FGE MHC-1, at 42-43 (electric); AG 1-35).[50] In addition, the Company took other measures to improve its employee compensation package, including reducing health care costs and implementing an annual cash incentive program (Exhs. FGE MHC-1, at 40 (gas); FGE MHC-1, at 42-43 (electric); AG 1-35).[51]

2. Positions of the Parties

a. Attorney General

The Attorney General argues that the Department should deny any increases in non-union payroll expense (Attorney General Brief at 28). The Attorney General argues that

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[50] In order to ensure that the data from the Hay Group remained a reliable basis of measuring median base pay and salary ranges, Fitchburg participated in several other salary surveys, including a benchmark analysis performed in 2001 to compare the Company's midpoint pay scales with those found in a 2001 Hay Group survey (Exhs. FGE MHC-1, at 40 (gas); FGE MHC-1, at 43 (electric); AG 5-14 (gas)).

[51] The Company's actions related to the cash incentive program and health care costs are discussed later in this Order in Sections V(B) and V(C), below.

these increases are not reasonable, because the Company's overall compensation package, which includes wages and benefits, is well above the median level for utilities and all industrial companies, particularly in the case of Fitchburg's president/chief operations officer and senior vice president (Attorney General Brief at 28-29, citing RR-AG-7; Tr. 12, at 1527-1531; Attorney General Reply Brief at 17-18). The Attorney General also states that the Department should not limit its review to Fitchburg's wage component, but also must examine the Company's request in relation to its overall compensation package (Attorney General Brief at 29-30, citing Massachusetts Electric Company, D.P.U. 95-40, at 26 (1995)).

In addition, the Attorney General argues that the 1998 Hay Study cannot be relied upon to demonstrate the reasonableness of Fitchburg's employee compensation expense (Attorney General Brief at 30-31; Attorney General Reply Brief at 17-18). First, the Attorney General maintains that because the 1998 Hay Study relies on data from firms with over $1 billion dollars in annual revenues, compared to Fitchburg's $90 million in total annual revenues, any comparison of employee compensation is unreasonable (Attorney General Brief at 30). Second, the Attorney General contends that the different job classification and scaling systems between the 1998 Hay Study and later surveys performed by the Hay Group render any comparison between the 1998 Hay Study and subsequent compensation studies meaningless and unreliable (id.). Moreover, the Attorney General argues that Fitchburg's reliance on the Hay Group's benchmarking with data from 2000 through 2002 wage and salary benefit surveys is flawed, because the Company failed to (1) name the 2000 through 2002 wage and benefit surveys upon which the Hay Group relied, (2) describe the relevant chapters or charts that

formed the basis of the Hay Group's evaluation, and (3) provide a witness or a representative of the Hay Group to support the data (id., citing RR-AG-7).

The Attorney General argues that even the incomplete information cited by the Company demonstrate its salaries are above the median, with salaries for four job grades exceeding the median provided by the American Gas Association ("AGA") in its 2001 survey, based on companies with between $150 million and $400 million in annual revenues (Attorney General Reply Brief at 18, n.17, citing Exh. AG 5-14). The Attorney General states that while the Company's reference to a 2001 Compdata survey of New England utilities and other industrial firms, sponsored by the Boston Chamber of Commerce, may have some applicability, there is no basis in the record to suggest that this study was used by the Company (Attorney General Brief at 30-31, citing RR-AG-7).

In order to bring Fitchburg's total employee compensation package into line with what he considers the industry median, the Attorney General presents several alternatives for Department consideration (Attorney General Reply Brief at 18). The Attorney General proposes that the Department (1) disallow the Company's proposed non-union wage and salary adjustment, (2) reduce the adjustment to bring the Company's benefits program to a level equal to the industry median, or (3) reduce the employee compensation package of the Company's two top wage earners to bring them into line with the industry median (id.).

b. Fitchburg

Fitchburg maintains that, contrary to the claims of the Attorney General, it has provided extensive information regarding its employee compensation structure (Fitchburg

Reply Brief at 13, citing Exhs. AG 5-11 (gas); AG 5-11 (electric); DTE 4-5 (confidential); FGE Surveys (confidential);[52] FGE MHC-1, at 36-41 (gas); FGE MHC-1, at 39-44 (electric)). Fitchburg contends that the Attorney General raised the issue of a Hay Group witness not being available for the first time on brief, and that the Attorney General failed to provide any offer of proof sufficient to warrant the additional burden and expense of bringing in an outside witness (Fitchburg Brief at 57). The Company argues that because its witness on the issue had direct information about the 1998 Hay Study, and proved to be a competent witness on both compensation matters and Department precedent in this area, there was no need for a witness from the Hay Group (id.).

Fitchburg contends that the Attorney General has misread the results of both the 1998 Hay Study and the underlying surveys used to justify the Company's non-union wage increases, and demonstrates a lack of understanding about the use of this information (id. at 56). For example, the Company contends that data from the 1998 Hay Study include companies that generate less than $1 billion dollars in annual revenues (id. at 55, citing Exhs. FGE Surveys (confidential); DTE 4-5 (confidential); RR-AG-7). Moreover, the Company argues that it used other salary surveys to verify the results of the 1998 Hay Study (Fitchburg Brief at 56-57, citing Exhs. FGE MHC-1, at 40 (gas); FGE MHC-1, at 43 (electric); FGE Surveys (confidential); RR-AG-7).

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[52] On September 30, 2002, the Hearing Officer granted Fitchburg's motion to admit into evidence confidential Hay Group salary surveys for the years 2000 through 2002. These surveys have been admitted as Exhibit FGE Surveys (confidential).

The Company argues that while its two top wage earners have a significantly higher benefits program than the industry median, these employees are actually Unitil employees with total compensation packages (salary plus benefits) below median levels (Fitchburg Reply Brief at 13-14, citing Exh. DTE 4-5, at 16 (confidential)). Similarly, Fitchburg argues that while the AGA survey shows that three out of five Company job positions are above the AGA median for small gas companies nationwide, the same study shows that three out of five Company job positions are below the AGA median in comparison to gas companies in New England (Fitchburg Reply Brief at 14, citing Exh. DTE 4-5, at 16 (confidential)). Finally, the Company argues that it has demonstrated an historical correlation between union and non-union wages, and has provided evidence of management's commitment to implement 2003 non-union adjustments (Fitchburg Brief at 52, citing Exh. AG 1-41).

3. Analysis and Findings

The Department's standard for union payroll adjustments requires that three conditions be met: (1) the proposed increase must take effect before the midpoint of the first twelve months after the rate increase; (2) the proposed increase must be known and measurable, i.e., based on signed contracts between the union and the company; and (3) the proposed increase must be demonstrated to be reasonable. D.P.U. 96-50 (Phase I) at 43; D.P.U. 95-40, at 20; Cambridge Electric Light Company, D.P.U. 92-250, at 35 (1993); D.P.U. 86-280-A at 74.

To recover an increase in non-union wages a company must demonstrate that: (1) there is an express commitment by management to grant the increase; (2) there is an historical

correlation between union and non-union raises; and (3) the non-union increase is reasonable. D.P.U. 96-50 (Phase I) at 42; D.P.U. 95-40, at 21; Fitchburg Gas and Electric Light Company, D.P.U. 1270/1414, at 14 (1983). In addition, non-union salary increases that are scheduled to become effective no later than six months after the date of the Order may be included in rates. Boston Edison Company, D.P.U. 85-266-A/271-A at 107 (1986).

In determining the reasonableness of a company's employee compensation expense, the Department reviews the company's overall employee compensation expense to ensure that its employee compensation decisions result in a minimization of unit-labor costs. D.P.U. 96-50 (Phase I) at 47; D.P.U. 92-250, at 55. This approach ensures and recognizes that the different components (e.g., wages and benefits) are to some extent substitutes for each other, and that different combinations of these components may be used to attract and retain employees. The Department also requires companies to demonstrate that their total unit-labor cost is minimized in a manner that is supported by their overall business strategies. D.P.U. 92-250, at 55. However, the individual components of a company's employment compensation package will be appropriately left to the discretion of a company's management. Id. at 55-56.

To enable the Department to determine the reasonableness of a company's total employee compensation expenses, companies are required to provide comparative analyses of their employee compensation expenses. D.P.U. 96-50 (Phase I) at 47. Both current total compensation expense levels and proposed increases should be examined in relation to other New England investor-owned utilities and to companies in a utility's service territory that compete for similarly skilled employees. Id. at 47; D.P.U. 92-250, at 56; Bay State Gas

Company, D.P.U. 92-111, at 102-103 (1992); Massachusetts Electric Company, D.P.U. 92-78, at 25-26 (1992).

With respect to Fitchburg's union payroll increases, the proposed adjustments appropriately include only those increases that have been granted or will be granted before the midpoint of the first twelve months after the Department's Order in this proceeding (Exhs. FGE MHC-1, at 37 (gas); FGE MHC-1 (gas), Sch. MHC-7-5; FGE MHC-1, at 40 (electric), FGE MHC-1 (electric), Sch. MHC-7-3; RR-DTE-6 (rev.)). Because the union payroll increases are based on a signed collective bargaining agreement that remains in effect through May 31, 2005, the Department finds that these proposed increases are also known and measurable (Exhs. FGE MHC-1, at 36 (gas); FGE MHC-1, at 40 (electric); AG 1-42, at 49).

To address the requirement that there be an historical correlation between union and non-union wages, the Department evaluates the relationship between union and non-union increases. D.T.E. 01-56, at 56; D.P.U. 96-50 (Phase I) at 42. Annual union wage increases granted between 1993 and 2002 have ranged between zero percent[53] and five percent (Exh. AG 1-41). At the same time, annual non-union salary increases have ranged between 3.10 percent and 5.39 percent (id.). Union wages increased by 3.50 and 3.10 percent in 2001 and 2002, respectively (id.). The non-union wages increased by 4.81 percent in 2001 and 4.90 percent in 2002 (id.). Based on this evidence, the Department finds that a sufficient

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[53] In 1998 and 1999, the Company's union employees received two percent lump-sum payments instead of a wage increase (Exh. AG 1-41).

correlation exists between union and non-union wage increases. See Essex County Gas Company, D.P.U. 87-59-A at 18 (1988).

Finally, survey data indicate that the hourly rates paid to Fitchburg's union employees are comparable to the average hourly rates of other gas and electric utilities in New England and New York (Exhs. FGE MHC-1, at 41 (gas); FGE MHC-1, at 44 (electric)). Therefore, the Department finds the union wage increase are reasonable. Having found that the proposed union wage increases (1) take effect before the midpoint of the first twelve months after the rate increase, (2) are known and measurable, and (3) are reasonable, the Department will allow the Company to adjust its test year gas and electric cost of service for the union payroll increases.

With respect to Fitchburg's non-union payroll increases, the proposed adjustments appropriately include only those increases that have been granted or will be granted before the midpoint of the first twelve months after the Department's Order in this proceeding (Exhs. FGE MHC-1, at 37 (gas); FGE MHC-1 (gas), Sch. MHC-7-5; FGE MHC-1, at 40 (electric); FGE MHC-1 (electric), Sch. MHC-7-3; RR-DTE-6 (rev.)). Because management has expressly committed to granting another non-union payroll increase on January 1, 2003, the Department finds that these proposed increases are known and measurable (Exhs. FGE MHC-1, at 34 (gas); FGE MHC-1 (gas), Sch. MHC-7-5; FGE MHC-1, at 40 (electric); FGE MHC-1 (electric), Sch. MHC-7-3; Tr. 3, at 296-297).

With respect to the reasonableness of proposed non-union payroll increases, Fitchburg offered the results of the 1998 Hay Study and subsequent benchmarking surveys (Exhs. FGE

MHC-1, at 37 (gas); FGE MHC-1, at 41 (electric); DTE 4-5 (confidential); Tr. 11, at 1351)). As an initial matter, we must address the Attorney General's criticisms of the 1998 Hay Study. First, the Attorney General argues that the Company's failure to sponsor a witness from the Hay Group to support the 1998 Hay Study renders the study unreliable. However, it is neither necessary nor cost-effective to provide an outside witness for each cost of service issue that may arise in a rate case. Fitchburg's witness on employee compensation relied on published surveys and other data in his possession. Moreover, the Company's witness demonstrated (1) competence on the issue of employee compensation, (2) direct knowledge of the 1998 Hay Study, (3) knowledge of the relationship of the 1998 Hay Study to the Company's wage structure, and (4) knowledge of the other salary surveys to verify the results of the 1998 Hay Study (Tr. 11, at 1349-1353). The Department finds that the lack of a witness from the Hay Group did not adversely affect the ability of the parties to develop the record on this issue. Nor did the lack of a Hay Group witness translate into a lack of substantial record evidence on this point.

The Attorney General further argues that the use of the 1998 Hay Study is flawed because Fitchburg is compared with companies that, among other things, have higher revenues. Given the Massachusetts gas distribution industry, the number of comparable local companies is limited. See D.T.E. 01-56, at 57. Moreover, one of the two comparison group used in the 1998 Hay Study was composed of industrial companies with less than $1 billion in sales, as is the case for Fitchburg (Exh. DTE 4-5, at 5 (confidential)). Therefore, the

Department finds that the comparison groups used in the 1998 Hay Study provide a reasonable basis for evaluating the Company's employee compensation policies.

Further, the Attorney General contends that the different job classification and scaling systems between the 1998 Hay Study and later surveys render later compensation studies meaningless. Finally, the Attorney General argues that the Company's 2000 through 2002 benchmarking of the 1998 Hay Study is flawed because Fitchburg did not specify or describe the information that the Company relied upon. These criticisms go to the evidentiary weight that the Department accords the 1998 Hay Study, but do not render the study results unreliable. The Department is quite familiar with the employee positions and duties that a combination utility, such as Fitchburg, would be expected to have on its payroll as well as the various titles these employees may hold. Accordingly, the Department finds that the 1998 Hay Study is acceptable and will consider the results of the study, along with the additional surveys presented by the Company, in determining the reasonableness of Fitchburg's non-union payroll increase.

In evaluating Fitchburg's non-union employee compensation, although the Company's two top wage earners have programs significantly higher in benefits than the industry median, these employees also have a compensation package, including salaries and benefits, that is below the median (Exh. DTE 4-5, at 16 (confidential)). Similarly, the AGA Survey demonstrates that while many of Fitchburg's surveyed job positions were above the national average for small gas companies, many of the Company's job positions were below the AGA median for New England gas companies (id.). While nationwide data are important, the

Department considers the New England data to have greater weight in evaluating the Company's employee compensation program.

The Department has found that utilities may offer employee compensation packages that are competitive with other regulated and non-regulated companies to attract and retain skilled employees. D.T.E. 01-56, at 57. The results of the 1998 Hay Study indicated that Unitil's pay structure was low compared to other New England and national utilities (Exhs. FGE MHC-1, at 39 (gas); FGE MHC-1, at 42 (electric)). Since 1998, the Company's non-union salary increases have been one to two percent higher than the average in order to bring Fitchburg's salary range closer to the utility median (Exhs. FGE MHC-1, at 39 (gas); FGE MHC-1, at 43 (electric)). By offering executives the mid-point of a salary range paid to employees at regulated and non-regulated companies within Fitchburg's service territory, Fitchburg is able to remain competitive in attracting and retaining these employees. Therefore, the Department finds that the amount of the non-union payroll increases is reasonable.

Having found above that the proposed non-union payroll increases (1) are known and measurable, (2) that there is an historical correlation between union and non-union raises, and (3) that the non-union payroll increases are reasonable, the Department will allow the Company to adjust its test year gas and electric cost of service for the non-union payroll increases. The total union and non-union payroll adjustment increases test year gas division payroll expense by $107,379 and increases test year electric division payroll expense by $103,418 (Exhs. FGE Update (gas), Att. 2, at 17; FGE Update (electric), Att. 1, at 14).

B. Incentive Compensation

1. Introduction

During 1998 and 1999, Fitchburg implemented two incentive compensation plans. The Unitil Management Incentive Plan ("Management Plan") went into effect on January 1, 1998, and is intended for key management employees, including managers and officers (Exh. DTE 4-9; Tr. 13, at 1610). The Unitil Incentive Plan ("Incentive Plan") went into effect on January 1, 1999, and is intended for non-union employees who are not otherwise qualified to participate in the Management Plan (Exh. DTE 4-9; Tr. 13, at 1610). During the test year, the Company booked as expenses $134,970 in payments under the Management Plan, and $33,521 in payments under the Incentive Plan for a total of $168,491 (Exhs. AG 1-35; AG 1-36, Att. 1; Tr. 13, at 1620).[54] Of this amount, 35.92 percent, or $60,522, was allocated to the Company's gas division, and 64.08 percent, or $107,969, was allocated to its electric division (Exhs. AG 1-35; AG 1-36).

The Management Plan provides for a target payout range from five percent of base salary to 50 percent of base salary if preestablished goals are met as set each year by Unitil's board of directors (Exh. DTE 4-9, Att. 2). The Incentive Plan provides for a target payout of five percent of base salary if certain goals are met (Exh. DTE 4-9, Att. 1). For both plans, these goals are generally in the areas of customer satisfaction, safety and reliability, and cost

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[54] During the test year, a total of $282,601 was paid out to Unitil Service employees under the Management Plan (Exh. AG 1-36, Att. 1). Of this amount, Fitchburg was allocated 39.97 percent, or $112,956 (Exh. AG 1-36; Tr. 13, at 1620). Direct employees of Fitchburg received an additional $22,014 under the Management Plan (Exh. AG 1-36, Att. 1).

containment (Exh. FGE MHC-1, at 43 (electric); Tr. 1, at 111-112). Each year, Unitil establishes a set of targets or weighted goals and its board of directors approves the payment bonuses based on whether these goals were attained (Tr. 1, at 112). During the test year, the goals and weights for both incentive plans were as follows: (1) earnings (40 percent normalized); (2) service reliability (ten percent); (3) distribution cost (ten percent); (4) customer satisfaction (ten percent); (5) Usource - new business initiatives (ten percent); and (6) subjective evaluation (20 percent) (Exhs. DTE 4-9; AG 1-36; Tr. 15, at 1903).

The earnings category includes only utility operations (Tr. 13, at 1613). The service reliability category measures historical service standards against performance (id. at 1614). The distribution cost category measures cents per KWH for service (id. at 1615). Customer satisfaction measures how the Company is performing in the areas of customer service, customer education, and customer assistance (id. at 1615-1616). The Usource - new business initiatives category measures the Company's non-regulated brokering business' goals of achieving a neutral cash flow and adding new customers (Exh. DTE 4-9, Att. 1, at 7; Tr. 13, at 1616). The subjective category is discretionary, and measures employee performance as it relates to unanticipated events (Tr. 13, at 1618).

2. Positions of the Parties

a. Attorney General

The Attorney General contends that the Department should disallow all expenses in cost of service arising from both Company incentive plans (Attorney General Reply Brief at 21). The Attorney General argues that the incentive program payments, which were paid to

Fitchburg employees as well as to Unitil Service employees, should be removed from the cost of service because the adjustment is based on shifting incentive goals that are not known and measurable (Attorney General Brief at 36). In addition, the Attorney General argues that the Department should require the Company to revise the incentive compensation plan to prevent shifts in the weights assigned to various goals during the course of the year (Attorney General Reply Brief at 21).

The Attorney General contends that, at a minimum, the Department should disallow the part of the payroll adjustment resulting from the earnings goal, the new business initiatives goal and the subjective goal (Attorney General Brief at 37). The Attorney General contends that these goals are undefined and the bonuses paid for reaching them are unreasonable, unquantifiable, and not known and measurable by an objective standard (id.). The Attorney General states that, for example, the Company started the test year with a 30 percent weight for the earnings per share goal, but later in the test year increased the weight to 40 percent without providing an adequate explanation for doing so (id., citing Exh. DTE 4-9, Atts. 2 and 3). The Attorney General also contends that the Company adjusted or normalized the goal weights for earnings and new business initiatives during the test year, but failed to justify using this approach (Attorney General Reply Brief at 21). Finally, the Attorney General argues that the new business initiatives goal does not provide any direct benefits to utility customers (Attorney General Brief at 37).

b. Fitchburg

The Company argues that the test year amounts paid for both of its incentive programs are known and measurable and appropriately included in its test-year cost of service (Fitchburg Brief at 95). Fitchburg argues that, by maintaining fair and adequate compensation, its incentive plans reduce employee turnover and benefit ratepayers by providing better service at lower costs (id. at 96). Also, Fitchburg argues that its incentive plans were developed in an effort to make the Company's compensation plan more competitive (id.).

Fitchburg contends that the incentive plan goals did not change during the test year. Instead, the Company argues that the weights assigned to the goals were reallocated based on business judgment (Fitchburg Brief at 96; Fitchburg Reply Brief at 20). The Company argues that it appropriately normalized the earnings goal for weather because weather is beyond the control of its employees (Fitchburg Reply Brief at 21). Finally, the Company contends that even though it adjusts the incentive goals from time to time, the costs are still recoverable (Fitchburg Brief at 95). Fitchburg notes that business judgment is applied to many cost items that are known and measurable and are also included in the cost of service (id.).

3. Analysis and Findings

The Department has traditionally allowed incentive compensation expenses (i.e., bonuses) to be included in utilities' cost of service so long as they are (1) reasonable in amount, and (2) reasonably designed to encourage good employee performance. D.P.U. 89-194/195, at 34. In order for an incentive plan to be reasonable in design, it must both encourage good employee performance and result in benefits to

ratepayers. D.P.U. 93-60, at 99. As a rule, if a company's employee-performance standards are based at least in part on job performance of the individual employee, rather than based solely on the company's financial performance, the incentive plan is deemed to reasonably encourage good employee performance. The Department has stated that if incentive compensation is tied only to financial performance, the benefit to ratepayers is unclear. D.P.U. 89-194/195, at 34. The Department has also disallowed incentive compensation for senior management if the company's management failed to show itself worthy of bonuses. D.P.U. 85-266-A/271-A at 110-111.

The Department must first determine whether the payments under Fitchburg's incentive compensation plans are reasonable in amount. Under the Management Plan, Fitchburg's officers received incentive payments in the test year that ranged from a low of $1,900 to a high of $110,000, for a total of $267,120 (Exh. AG 1-36). Fitchburg was allocated 39.97 percent of this total, or $112,956 (Exh. AG 1-36; Tr. 13, at 1620-1621). The remaining eligible employees under the Management Plan received incentive payments in the test year ranging from a low of $2,000 to a high of $10,300, for a total of $22,014 (Exh. AG 1-36). Under the Incentive Plan, eligible employees received test year payments averaging $1,397 (id.).

In total, the Company paid $168,575 in incentive compensation during the test year through a combination of direct charges and allocations, representing 3.5 percent of the Company's total test year wages of $4,777,441 (Exhs. DTE 4-7; AG 1-36; Tr. 13, at 1620). Fitchburg's incentive compensation programs are similar to those of other utilities for similarly skilled employees. See D.P.U. 93-60, at 98-101; D.P.U. 92-111, at 114-115. Therefore, the

Department finds the test year payouts from Fitchburg's incentive compensation plans are reasonable.

Next, the Department must determine whether Fitchburg's incentive compensation plans are reasonable in design. The incentive compensation plan was part of an overall strategy to make Fitchburg more competitive (Exh. DTE 4-9, Att. 1, at 1). Performance in the service reliability, distribution cost, and customer satisfaction incentive categories provide a direct benefit to ratepayers and are reasonably designed to encourage good employee performance.

While the Department has questioned the benefit of incentive compensation plans based solely on a company's financial performance, the portion of Fitchburg's incentive plan based on utility operations earnings can be compared to the award provision examined by the Department in D.P.U. 89-194/195, at 34. There, the Department stated that if the Company's financial performance meets certain goals, employees would be entitled to receive incentive compensation; other incentive factors would determine the amount of incentive compensation an employee may receive. D.P.U. 89-194/195, at 34. In addition, the Department accepts the normalization of the earnings goal for weather. A good incentive plan should reward management incentives, and not penalize employees for events beyond the company's control such as the weather. Therefore, the Department finds that the earnings category of the Company's incentive plan is reasonably designed to encourage good employee performance.

The Department will also allow Fitchburg to retain the subjective component as part of its Company's total incentive plan. This component is necessary to ensure that the Company's

incentive plan is based, at least in part, on job performance of the individual employee. In contrast, the Department finds that the new business initiatives component of Fitchburg's incentive plan is not reasonably designed to encourage good employee performance and should be removed from the Company's cost of service. The new business initiatives category is based on the performance of Usource, a non-regulated part of the business. Performance in this category provides no obvious direct or indirect benefits to ratepayers -- at least, Fitchburg has demonstrated none. Because the Company failed to demonstrate benefit to ratepayers, the Department will remove from the Company's cost of service the new business initiatives category, comprising ten percent of the test year incentive plan payout. This adjustment results in a decrease to the Company's test year cost of service of $16,849 ($168,491 times ten percent). Based on the allocation of 35.92 percent to gas operations and 64.08 percent to electric operations, the Department reduces Fitchburg's proposed gas division cost of service by $6,052 and its proposed electric division cost of service by $10,798.

Finally, the Department does not accept the Attorney General's argument that Fitchburg should be required to keep the incentive plans' goal weights fixed during the term of the plan. If an incentive plan is determined to have flaws, the Company's management should have the ability to make appropriate modifications.

C. Medical and Dental Insurance

1. Introduction

During the test year, the Company booked a total of $291,054 in medical and dental insurance expense (Exhs. FGE MHC-1 (gas), Sch. MHC-7-6; FGE MHC-1 (electric),

Sch. MHC-7-4; DTE 1-30). Of this total, $127,778 was attributed to gas operations and $163,276 was attributed to electric operations (Exhs. FGE MHC-1 (gas), Sch. MHC-7-6; FGE MHC-1 (electric), Sch. MHC-7-4). The Company proposes to increase its test year gas division medical and dental insurance expense by $37,844 and to increase its test year electric division medical and dental insurance expense by $22,729 (Exhs. FGE MHC-1 (gas), Sch. MHC-7-6; FGE MHC-1 (electric), Sch. MHC-7-4).

Fitchburg states that, since 1995, it has taken various measures to contain the increases in its medical and dental insurance costs, both individually and as part of Unitil (Exhs. FGE MHC-1, at 42-43 (gas); FGE MHC-1, at 44-45 (electric); AG 1-52). As part of this effort, the Company points to its acquisition by Unitil in 1995, which increased its affiliated insured group from about 300 employees to over 1,000 employees, and resulted in more competitive rates from insurance carriers (Exhs. FGE MHC-1, at 42 (gas); FGE MHC-1, at 45 (electric); AG 1-52). Additionally, the Company noted its success in replacing its traditional indemnity plan with Blue Choice, a "points of service" plan incorporating what Fitchburg considers the best features of a health maintenance organization and an indemnity plan (Exhs. FGE MHC-1, at 42 (gas); FGE MHC-1, at 45 (electric); AG 1-52). The Company also started requiring employees to contribute ten percent towards the cost of their coverage, and implemented an "opt-out" program for employees with access to insurance elsewhere, such as through a spouse (Exhs. FGE MHC-1, at 43 (gas); FGE MHC-1, at 45-46 (electric); AG 1-52; Tr. 8, at 1006-1007). Finally, the Company converted on January 1, 2001 from a fully-insured to a self-insurance plan for the first $125,000 in claims to eliminate various Blue Cross/Blue Shield

administrative costs (Exh. AG 1-52; Tr. 8, at 968-969). As a result of the self-insurance plan alone, Fitchburg states that it was able to limit its test year cost increase to 15.6 percent, versus the 41.2 percent increase that would have occurred under Blue Cross/Blue Shield (Exhs. FGE MHC-1, at 43 (gas); FGE MHC-1, at 46 (electric); AG 1-52).

The Company's self-insurance plan is administered by its former indemnity provider, Anthem Blue Cross/Blue Shield ("Anthem") (Tr. 8, at 970, 972). Anthem's charges consist of a fixed monthly "projected claim cost" intended to cover claims filed during the upcoming year, and is based on its evaluation of the pattern and level of claims attributed to the Company (id. at 970–971). This charge is billed weekly to Unitil Service, with the cost in turn allocated to each of Unitil's subsidiaries based on employee headcounts and the type of insurance carried by the employee (Exh. AG 1-63 (electric)). Each month, Anthem provides Unitil Service with a claims settlement report listing the actual claims for each Unitil subsidiary (id.). Unitil Service records the difference between estimated and actual claims in a reserve account that is also used to track both excess claims experience and claims that have been incurred, but not yet recorded ("IBNR") (id.). The reserve account is reconciled yearly through either an additional charge or a credit to Unitil's subsidiaries (id.). Unitil is also billed a monthly combined charge consisting of (1) a fixed administrative fee that is based on the particular employee's coverage, and (2) stop loss coverage[55] (Exhs. AG 1-63 (electric); FGE MHC-2A (gas); FGE MHC-2B (electric); RR-DTE-63, Att. 4; Tr. 8, at 969-970).

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[55] Stop loss coverage allows a self-insuring insured party to place a set limit on their losses, with the reinsurer compensating the insured for any losses above that limit (Tr. 8, at 969-970).

2. Positions of the Parties

a. Attorney General

The Attorney General argues that the Department should reject the Company's proposed 21 percent increase because it represents a unsubstantiated estimate and, therefore, is neither known nor measurable (Attorney General Brief at 35; Attorney General Reply Brief at 20). According to the Attorney General, the Company's proposed expense is actually derived based on claim estimates provided by Anthem, and taken during the middle of the claims process (Attorney General Brief at 35; Attorney General Reply Brief at 19-20). Noting that Anthem's monthly bills include a credit representing the difference between estimated and actual claims, the Attorney General contends that rate recovery should be based on the claims actually and finally paid by Anthem (Attorney General Brief at 35, citing Tr. 8, at 971-972; Attorney General Reply Brief at 20). Moreover, the Attorney General argues that because Anthem's fees are based on claims estimates, Anthem has a perverse incentive to inflate its claims estimates (Attorney General Reply Brief at 20, n.18).

Finally, the Attorney General argues that the Company's own actuarial study for its post-retirements benefits other than pensions ("PBOPs") predicts only an 11.0 percent increase in medical costs for 2002 (Attorney General Brief at 36, citing RR-AG-62; Attorney General Reply Brief at 20). Therefore, the Attorney General argues that the Department should reject the test year adjustments for medical claims expense and limit any increase to 11.0 percent (Attorney General Brief at 36).

b. Fitchburg

The Company contends that its proposed medical and dental insurance expense is known and measurable, and reasonable in light of the Company's aggressive cost containment measures in terms of health care expense (Fitchburg Brief at 59). For example, the Company explains that it consistently measures its health care costs against other comparable companies through a review process that is conducted for both Unitil and for the Company on a stand-alone basis to make certain that health care costs are contained (id.). In addition, the Company points to its enhanced purchasing power through its affiliation with Unitil, the requirement of employee contributions, the self-insurance program, and the use of a broker to assist the Company in acquiring the lowest health care rates (id. at 59-60). Fitchburg argues that these cost containment measures have resulted in the reduction of the average health care cost per employee from 2000 to 2001, as well as a decrease in total medical and dental insurance costs between 1992 and 2001 (id. at 60, citing Exhs. AG 1-51, DTE 1-30).

Fitchburg contends that the Department has accepted the use of claim studies based upon historical information as reliable measures of health care expense (Fitchburg Reply Brief at 14, citing D.P.U. 87-59, at 39). The Company maintains that Anthem's projected analysis of 2002 medical expenses is reliable and reasoned in light of its actual experience, and is based on the historic pattern and level of claims issued by the Company's previous insurance carrier (Fitchburg Reply Brief at 14-15, citing RR-DTE-63; Tr. 8, at 970). Fitchburg contends that Anthem's billing policy represents the actual level of claims paid, and that Anthem's fee is based on a fixed amount per person, not estimated claims paid (Fitchburg Reply Brief at 15,

citing Exh. AG 1-63; RR-DTE-63, Att. 4). Fitchburg contrasts its approach to that of the Attorney General, arguing that the long-term medical trend contained in the Company's actuarial study lacks any record support for the Attorney General's proposed application of estimated retiree expenses to the actual claims experience of active employees (Fitchburg Reply Brief at 15).

3. Analysis and Findings

The Department requires that test year health care expenses and post-test year adjustments be (1) known and measurable, and (2) reasonable in amount. D.P.U. 96-50 (Phase I) at 45-46; North Attleboro Gas Company, D.P.U. 86-86, at 8 (1986). In addition, the Department requires utilities to contain their health care costs. D.P.U. 96-50 (Phase I) at 46; D. P. U. 92-78, at 29; D.P.U. 91-106/138, at 53.

Anthem establishes its estimated claims payment rate annually, taking into consideration the historic pattern and level of claims for electric utilities, transportation, communication, and utility companies (Tr. 8, at 970–971). These estimated claims billings are reconciled monthly to actual claims paid, based on prior months' over- or under-charges (Exh. AG 1-63; Tr. 8, at 970–971). The Department finds that the reconciliation feature of the self-insurance program provides assurance that, over time, the claims payments billed by Anthem will equal the actual claims paid.

Having determined that the Company's self-insurance program does rely on actual claims, the Department must now determine a representative level of claims payments. From January 10, 2002 and August 2, 2002, Unitil allocated $304,153 in claims payments to the

Company (RR-DTE-63, Att. 2). The Department finds it appropriate to annualize this payment amount in order to capture a full year of operations. See D.P.U. 85-270, at 156-157. Based on the Company's 31 weeks of data, the Department finds that the weekly expense associated with its claims payments is $9,811.39, for a total annual claims payment of $510,192. In order to account for the Company's excess claims experience, the Department will include an additional $23,963 associated with the September 2001 reconciliation from Unitil (Exhs. AG 1-63 (gas); AG 1-63 (electric)). Because the Company's IBNR represents a timing difference in the recording of claims, the Department balances the November and December 2001 IBNR entries with the previous year's IBNR claims that would have been booked in January 2001 (Exh. AG 1-63 (gas); AG 1-63 (electric)). Accordingly, the Department finds that Fitchburg's pro forma claims expense is $534,155.

The Company has been notified by Anthem of new administrative and stop loss coverage rates that will become effective January 1, 2003, representing an overall increase of approximately 9.18 percent over 2002 rates (RR-DTE-63, Att. 4). The Department finds that this represents a known and measurable change to the Company's test year cost of service. D.P.U. 95-118, at 94; D.P.U. 90-121, at 85. Application of the Company's new administrative and stop loss rates to the respective number of employees in each class, results in a total Company administrative and stop loss expense of $79,938 (RR-DTE-63, Atts. 3, 4). Accordingly, the Department finds that the Company's total administrative and stop loss expense is $79,938.

Based on the foregoing, the Company's total claims, administrative and stop loss expense is $614,093. Concerning the reasonableness of this level of medical care expense, Fitchburg has taken demonstrative measures to contain its health care costs, through the creation of a larger risk pool through Unitil, the elimination of its indemnity plan in favor of a "point of service" plan, employee contributions and opt-out features, and self-insurance (Exh. AG 1-52). As a result of these measures, Fitchburg's average medical cost increases between 1995 and 2002 have been limited to approximately six percent per year, with a modest decrease occurring between 2001 and 2002 on a per-employee basis (Exhs. AG 1-51; AG 1-52). While the Attorney General proposes to limit any increase to the 11.0 percent medical cost projection from Fitchburg's PBOP actuarial study, in the absence of further evidence on how this trend rate would be applicable to the Company's actual obligations under its self-insurance program, the Department declines to accept the Attorney General's proposed medical cost projection rate. Therefore, the Department finds that the Company's medical insurance expense is reasonable.

As noted above, the total of Fitchburg's pro forma claims experience of $534,155, and its administrative and stop loss coverage expense of $79,938, produces a total adjusted medical insurance expense of $614,093. Application of the ten percent employee contribution towards medical insurance costs produces a net expense of $552,684. This net amount, when added to the Company's net dental insurance expense of $70,555 and employee opt-out cost of $3,430, produces a total medical and dental insurance expense of $626,669. Of this amount,

46.31 percent, or $290,210, is allocated to the Company's gas division, and 53.69 percent, or $336,459, is allocated to the Company's electric division.

Because Fitchburg capitalized 49.8 percent of its gas and electric division health care expense during the test year, the Company's total medical and dental care expense must be reduced so that only the portion that is booked to O&M expense is included in its cost of service (Exhs. AG 1-40 (gas); AG 1-40 (electric); Tr. 8, at 979). Therefore, the Department finds that the appropriate O&M level for Fitchburg's medical and dental insurance expense is $145,685 for its gas division, and $168,902 for its electric division, as opposed to its proposed expenses of $165,622 for its gas division and $186,005 for its electric division. Accordingly, the Department decreases the Company's proposed medical and dental insurance expense by $19,937 for its gas division and $17,103 for its electric division.

D. Pension Expense

1. Introduction

Fitchburg did not book any pension expense during the test year (Exh. AG 1-49). Because the Company's pension fund is over-funded relative to its future pension liabilities, Fitchburg has not had to make a cash contribution to its pension plan since 1997 (Exhs. FGE MHC-1, at 44 (gas); FGE MHC-1, at 47 (electric); DTE 4-1; AG 1-49). However, as a result of an actuarial calculation required under the provisions of Financial Accounting Standards Board No. 87, the Company had recorded interest income on its pension fund, of which $80,189 was allocated to its gas division and $105,778 to its electric division (Exhs. AG 1-49 (gas); AG 1-49 (electric)). The Company proposes to include in its cost of service a pro forma

pension expense of zero, and, therefore, requests an increase to test year gas division cost of service of $80,189, and an increase to test year electric cost of service of $105,778 to remove the recorded interest income from its pension fund (Exhs. FGE MHC-1 (gas), Sch. MHC-7-7; FGE MHC-1 (electric), Sch. MHC-7-5; DTE 4-3).

2. Positions of the Parties

The Company states that it has not made any cash contributions to its pension fund since 1997 (Fitchburg Brief at 63, citing Exhs. FGE MHC-1, at 44 (gas); FGE MHC-1 (gas), Sch. MHC-2B; FGE MHC-1, at 47 (electric); FGE MHC-1 (electric), Sch. MHC-2C). Fitchburg contends that because its revenue requirement does not include any pension expense, the Company will be required to fund the pension expense in the future without rate recovery (Fitchburg Brief at 63). Therefore, the Company determined that it was appropriate to remove from its cost of service the interest income recorded during the test year and allocated to both its gas and electric divisions (id.).

3. Analysis and Findings

The Department's general policy with respect to pension expense is to limit rate recovery to test year cash contributions to the pension plan because accrual-based pension cost estimates generally cannot be shown to be annually or periodically recurring. D.P.U. 89-114/90-331/91-80 Phase One at 65-66; D.P.U. 88-250, at 67-72; D.P.U. 87-260, at 47. Therefore, if a company does not make any pension contributions during the test year, the Department will not include any pension expense in the cost of service. D.P.U. 88-250, at 67-72; D.P.U. 87-260, at 39-47.

The evidence indicates that the Company did not make any contributions to its pension funds during the test year (Exhs. AG 1-49; DTE 4-1). Therefore, the Department will not include any pension expense in the Company's cost of service. In order to eliminate all pension expense from the Company's pro forma cost of service, it is necessary to deduct the test year interest income earned on the pension fund. Accordingly, the Department accepts the Company's proposal to increase its gas and electric divisions pension expense by $80,189 and $105,778, respectively.

E. Post-Retirement Benefits Other Than Pensions

1. Introduction

During the test year, Fitchburg booked $179,730 in PBOP expense attributable to its gas division, and $317,264 in PBOP expense attributable to its electric division (Exhs. FGE MHC-1 (gas), Sch. MHC-7-8; FGE MHC-1 (electric), Sch. MHC-7-6). Presently, the Company's PBOPs consist of (1) an accrual for current employees, with the expense determined actuarially under the requirements of the Financial Accounting Standards Board No. 106, "Employers' Accounting for Post-Retirement Benefits Other Than Pension" ("FAS 106"), and (2) the "pay-as-you-go" URT used to pay benefits to retired employees (Exhs. FGE MHC-1, at 45 (gas); FGE MHC-1, at 48 (electric); Tr. 9, at 1049). Fitchburg proposes to increase its gas division FAS 106 expense by $1,252 and to decrease its electric division FAS 106 expense by $13 (Exhs. FGE Update (gas), Sch. MHC-7-8; FGE Update (electric), Sch. MHC-7-6). The Company also proposes to increase its gas division URT expense by $10,260 and increase its electric division URT by $54,569 (Exhs. FGE Update

(gas), Sch. MHC-7-8; FGE Update (electric), Sch. MHC-7-6). The combined adjustments represent an increase to test year cost of service of $11,513 for gas operations and an increase of $54,556 for electric operations (Exhs. FGE Update (gas), Att. 2, at 20; FGE Update (electric), Att. 1, at 17).

2. Positions of the Parties

a. Attorney General

The Attorney General challenges both Fitchburg's proposed FAS 106 accrual and URT expense (Attorney General Brief at 33; Attorney General Reply Brief at 19). According to the Attorney General, the Department requires that trust fund expenses must be tax deductible to be known and measurable, and that only actual cash contributions to a tax-deductible trust may be included as an adjustment to the cost of service (Attorney General Brief at 33, citing D.P.U. 95-40, at 39; D. P. U. 92-78, at 83; Attorney General Reply Brief at 19). The Attorney General contends that Fitchburg's estimated contributions to its URT are not known and measurable, and that the Company had made no cash contributions to a PBOP trust fund that would result in legitimate, known and measurable tax deductions appropriate for inclusion in the cost of service (Attorney General Brief at 33; Attorney General Reply Brief at 19).

The Attorney General argues that the Company's contention that it is saving ratepayers money by not creating a formal trust for its FAS 106 PBOPs is not supported by the record (Attorney General Reply Brief at 19). According to the Attorney General, the Company does not provide any persuasive argument for the Department to depart from precedent in this case

and allow the FAS 106 accrual and estimated URT contribution expenses for PBOP (Attorney General Reply Brief at 19).

b. Fitchburg

The Company argues that its proposed adjustment to both its FAS 106 expense and its URT contribution is based on known and measurable costs (Fitchburg Brief at 66, citing Exh. AG-1-48 (common); Fitchburg Reply Brief at 16, n.11). Fitchburg maintains that the Department has recognized its FAS 106 accrual expense in the past, and should continue to do so here (Fitchburg Reply Brief at 16, citing D.T.E. 99-118, at 57; D.T.E. 98-51, at 157). Fitchburg contends that because of the small size of its FAS 106 obligation, it chose not to create an associated trust for these obligations, thereby avoiding the fees and expenses that would be associated with trust administration (Fitchburg Brief at 66; Fitchburg Reply Brief at 16). The Company argues that denial of its FAS 106 expense would in effect penalize the Company for its cost containment measures (Fitchburg Brief at 66).

Concerning its URT expense, the Company contends that the Attorney General did not request substantiation of the 2002 URT funding level during the hearings, but rather objected for the first time on brief (id. at 65). The Company argues that its URT contributions meet the Department's standard as tax-deductible contributions, and should be allowed (Fitchburg Reply Brief at 16, citing D.P.U. 95-118, at 105; D.P.U. 92-78, at 83.

3. Analysis and Findings

The Company's PBOP funding policy is to contribute an amount equal to the actuarially determined FAS 106 costs for current employees, plus a "pay as you go" system for retirees

(Exhs. FGE MHC-1, at 45 (gas); MHC-1, at 48 (electric)). The Department has previously expressed concerns about PBOP obligations for regulated utilities, because several potentially volatile factors, including inflation, discount and investment rates, medical cost predictions, medical trend assumptions, and changes in the health care field still affect the reliability of PBOP obligation estimates. D.P.U. 96-50 (Phase I) at 84-85; D.P.U. 95-118, at 105; D.P.U. 92-111, at 224; D.P.U. 92-78, at 79-80.

Further, in determining the level of PBOP obligations to include in rates, the Department has held that financial accounting standards do not automatically dictate ratemaking treatment. D.P.U. 94-50, at 436; D.P.U. 92-78, at 79; D.P.U. 89-81, at 33; D.P.U. 85-270, at 118-119. The Department is charged with setting just and reasonable rates for companies within our jurisdiction, and we cannot permit accounting standards alone to determine our treatment of expenses. D.P.U. 85-270, at 118-119.

The Department has found that the actual cash contribution to a tax-deductible trust strikes a balance of interests between shareholders and ratepayers, in that this approach recognizes that utilities will incur PBOP obligations, emphasizes the need to reduce overall PBOP costs, ensures that ratepayer-supplied funds are retained to meet employee benefits, and matches employee benefits with the period in which they were earned. D.P.U. 95-40, at 39-40; D.P.U. 92-111, at 225-226; D.P.U. 92-78, at 83. However, the Department has not mandated the creation of tax-deductible trusts as a means of providing for PBOP obligations. The Company represents that it has exercised its management judgment to determine that the costs of creating and maintaining a tax-deductible trust for its FAS 106 obligations would

outweigh the benefits of such a trust. That assumption remains to be tested. The Department directs Fitchburg to assess the costs and benefits of creating a tax-deductible trust, and address this issue as part of its next base rate proceeding.

The Company's FAS 106 costs for 2002 are $31,898 (Exh. AG 1-48 (electric), Att. 1, at 1; RR-AG-62; Tr. 9, at 1049-1050). The Department finds that the $31,898 expense is representative of the Company's FAS 106 benefit cost. Because this expense must be allocated between Fitchburg's gas and electric divisions, the Department finds that the proposed allocator of 46.31 percent to gas operations and 53.69 percent to electric operations is appropriate (Exhs. FGE MHC-6, at 330 (gas); FGE MHC-6, at 330 (electric)). Because a portion of the Company's FAS 106 expenses is capitalized, Fitchburg's FAS 106 benefit costs are $8,494 for its gas division, and $9,539 for its electric division.

Concerning the Company's URT funding, the Department denied Fitchburg's motion to reopen the record to admit evidence of a Unitil board of directors vote regarding the Company's 2002 URT funding. See Section I(B)(4)(c), above. Despite this denial, other evidence supports a finding that the Company will be funding its URT in the amount of $545,029 for the calendar year 2002 (Exhs. FGE MHC-1, at 42 (gas); FGE MHC-1, at 48 (electric); Tr. 9, at 1049-1050). Therefore, the Department finds that the $545,029 URT contribution represents a known and measurable change to test year cost of service.

Accordingly, the Department will allocate $182,748 of this expense to the Company's gas division and $362,281 to its electric division, based on the proposed allocator of 33.53 percent for gas operations and 66.47 percent for electric operations (Exhs. FGE MHC-6, at 16

Pages 117 through 121 intentionally omitted.

(gas); FGE MHC-1, at 16 (electric). Therefore, the Department finds that Fitchburg's FAS 106 and URT costs are $191,242 for its gas division, and $371,820 for its electric division. The combined adjustments represent an increase to test year cost of service of $11,513 for gas operations and an increase of $54,556 for electric operations.

F. Property Taxes

1. Introduction

During the test year, Fitchburg booked $350,369 in property taxes associated with its gas division, and $683,167 in property taxes associated with its electric division, for a total of $1,033,536 (Exhs. FGE MHC-1 (gas), Sch. MHC-7-19; FGE MHC-1 (electric), Sch. MHC-7-16). Based on property tax bills received as of October 24, 2002, the Company proposes to increase its total property tax expense by $311,885, for a pro forma expense of $1,345,421 (id.). Based on the results of its gas and electric common cost allocation study, the Company proposes to allocate its property tax expense on the basis of 38.91 percent to gas operations, and 61.09 percent to electric operations (Exhs. FGE MHC-1, at 69 (gas); FGE MHC-1, at 71 (electric); FGE Update (gas), Att. 2, at 36; FGE Update (electric), Att. 1, at 32). This results in a proposed increase to the gas division's test year cost of service of $173,134, and a proposed increase to the electric division's test year cost of service of $138,751 (Exhs. FGE Update (gas), Att.2, at 36; FGE Update (electric), Att. 1, at 32).

2. Positions of the Parties

The Company contends that its property tax expense adjustment is consistent with Department precedent (Fitchburg Reply Brief at 22). Fitchburg maintains that its revised

property tax bills provided at the end of the proceeding are a routine and customary calculation (id., citing D.T.E. 01-56, at 36; D.T.E. 01-50, at 21-22; D.P.U. 92-210, at 43; D.P.U. 92-78, at 58-62). No other parties commented on this issue.

3. Analysis and Findings

The Department's general policy is to base property taxes on the most recent property tax bills a utility receives from the communities in which it has property. D.P.U. 96-50 (Phase I) at 109; Colonial Gas Company, D.P.U. 84-94, at 19 (1984). Based on the most recent property tax bills received by Fitchburg, the Department finds that the Company's total annual property tax expense is $1,338,224, of which $9,878 was capitalized, resulting in a net property tax expense of $1,328,346 (RR-AG-65 (supp.), Att. 1, at 1). Using the results of the Company's gas and electric common cost allocation study which produced a gas division allocation factor of 38.91 percent and an electric division allocation factor of 61.09 percent, the Department finds that the appropriate property tax allocations to the Company's gas and electric divisions are $516,859 and $811,487, respectively (Exhs. FGE MHC-1, at 69 (gas); FGE MHC-1, at 71 (electric); RR-AG-65 (supp.)).

Of the total electric division property tax expense of $811,487, $4,432 represents property taxes associated with Sawyer Passway (RR-AG-65, Att. 1, at 3). The Department has removed the costs of Sawyer I from Fitchburg's electric rate base. See Section III(A)(3), above. Therefore, a corresponding reduction is warranted to the Company's electric division

property taxes. D.P.U. 95-118, at 148. Although there is no separate bill for Sawyer I,[56] the Company's annual personal property tax bill from the City of Fitchburg is $864,566, on a personal property assessment of $36,479,560 (RR-AG-65, Att. 1, at 3, Att. 2, at 39). To derive a reasonable measure of the property taxes associated with Sawyer I, the Department will multiply the net book value of Sawyer I ($394,673) by the ratio of the Company's total personal property taxes from the City of Fitchburg to the assessed value of personal property in that community (2.37 percent). This calculation produces a property tax associated with Sawyer I of $9,354 (RR-AG-52; RR-AG-65, Att. 1, at 3, Att. 2, at 39). Accordingly, the Department will reduce the Company's electric division property taxes by $9,354.

Based on the analysis above, the Department finds that Fitchburg's allowable level of property taxes related to its gas division are $516,859 and the Company's allowable level of property taxes related to its electric division are $802,133 ($811,487 minus $9,354). This results in an increase to the gas division's test year cost of service of $173,134, and an increase to Fitchburg's electric division's cost of service of $129,397. Accordingly, the Department will reduce the Company's proposed gas division cost of service by $647, and will reduce Fitchburg's proposed electric division cost of service by $19,785.

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[56] While Fitchburg's property taxes include bills for Sawyer Passway, these bills are only attributable to the land located at Sawyer Passway (RR-AG-65, Att. 2, at 50). Plant assets, such as distribution poles and gas mains, are considered to be personal property and are billed separately from real estate.

G. Depreciation Expense

1. Introduction

During the test year, Fitchburg booked $1,706,558 in depreciation expense for its gas division and $1,964,548 for its electric division (Exhs. FGE Update (gas), Att. 2, at 37; FGE Update (electric), Att. 1, at 33). The Company proposes to increase its test year gas division depreciation expense by $109,199 and its test year electric division depreciation expense by $1,127,905 (Exhs. FGE Update (gas), Att. 2, at 37; FGE Update (electric), Att. 1, at 33).

For its gas division, Fitchburg applied account-specific accrual rates to test year-end depreciable plant, resulting in a 3.41 percent composite accrual rate for manufactured gas plant, a 4.71 percent composite accrual rate for distribution plant, and a 4.56 percent composite accrual rate for general plant (Exh. FGE JHA-1, at 61, 115-117 (gas)). For its electric division, the Company applied account-specific accrual rates to test year-end depreciable plant, resulting in a 4.52 percent composite accrual rate for transmission plant, a 4.76 percent composite accrual rate for distribution plant, and a 4.44 percent composite accrual rate for general plant (Exh. FGE JHA-1, at 77, 119-120 (electric)). For common plant used by both the gas and electric divisions, the Company proposes account-specific accrual rates, resulting in an overall accrual rate of 6.19 percent (Exhs. FGE JHA-1, at 85 (gas); FGE JHA-1, at 91 (electric)). These accrual rates represent an increase from the Company's current gas distribution accrual rate of 4.14 percent, electric distribution accrual rate of 3.06 percent, and common plant accrual rate of 4.10 percent (id.).

In support of its proposed accrual rates, the Company presented a depreciation study using plant data as of December 31, 2001, and employing the "remaining life" method to estimate the proposed depreciation accrual rates (Exhs. FGE JHA-1, at 90 (gas); FGE JHA-1, at 96 (electric)).[57] The Company's historic life analysis relied on the simulated plant balances ("SPR-BAL") method, that was first introduced in 1947 and is now widely-used and accepted in the depreciation analysis field (Exhs. FGE JHA-1, at 90 (gas); FGE JHA-1, at 96 (electric)). The SPR-BAL analysis is an iterative process in which factors derived from empirical survivor curves are applied to actual recorded annual plant additions to generate theoretical surviving year-end balances (Exhs. FGE JHA-1, at 65 (gas); FGE JHA-1, at 70-71 (electric); DTE 1-18; Tr. 2, at 187). In this way, empirical curves that best simulate the actual ending balances in a specified range of years are determined to establish an appropriate average service life ("ASL") for the respective plant accounts (Exhs. FGE JHA-1, at 65, 90 (gas); FGE JHA-1, at 70-71, 96 (electric)).[58]

2. Positions of the Parties

a. Attorney General

The Attorney General contends that the Company has engaged in "opinion shopping" in its preparation of the depreciation study (Attorney General Brief at 40). The Attorney General

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[57] The depreciation study was conducted by MAC (Exhs. FGE JHA-1, at 79 (gas); FGE JHA-1, at 85 (electric)).

[58] These empirical curves were developed during the 1920s and 1930s at Iowa State University, and are generally known as "Iowa curves" (Exh. FGE JHA-1, at 84 (gas)).

argues that the Company demands that the Department accept the opinion of its witness, even if that opinion is contrary to the results of the statistical analyses (Attorney General Brief at 39-40; Attorney General Reply Brief at 29). Moreover, the Attorney General maintains that the reliability of the depreciation witness' opinion is undermined by the fact that his testimony conflicts with both the testimony and results of the witness who prepared the Company's depreciation study in D.T.E. 98-51 ("1998 Study") (id.). Therefore, the Attorney General concludes that the Department should reject Fitchburg's proposed depreciation accrual rates (Attorney General Brief at 40).

Notwithstanding his opposition to Fitchburg's depreciation study, the Attorney General contends that other flaws make the study unacceptable. First, the Attorney General alleges that the Company failed to follow the Department's directives to perform a gas main actuarial study by material type (id. at 40-41, citing D.T.E. 01-56). The Attorney General suggests that, because Fitchburg's cast iron main retirement program has a disproportionate effect on the average service lives of other mains, the failure of the Company to consider the material composition of its mains renders any analysis of their useful lives ineffective (id. at 40-41). The Attorney General maintains that the Company had adequate time between the Department's issuance of its decision in D.T.E. 01-56 and the filing of its rate case to conduct a gas main actuarial study (Attorney General Reply Brief at 29-30).

Second, the Attorney General challenges the methods employed in the depreciation study as internally inconsistent and unreasonable (Attorney General Brief at 41). In support of his argument, the Attorney General notes that the witness has a long-standing policy of not

immediately changing the average remaining life of a plant account based on the results of a statistical analysis, even if the statistical results appear in consecutive studies (id. at 42, citing Tr. 2, at 206-207). The Attorney General also notes that the witness appropriately adjusted the estimated average remaining life on an incremental basis, representing between ten and 20 percent of the difference from the results of prior statistical analyses (id.). However, the Attorney General argues that the witness failed to apply this same incrementalism to his net salvage value analyses, especially in the case of the Company's electric plant accounts (Attorney General Brief at 42). According to the Attorney General, Fitchburg's "first-in, first-out" ("FIFO") policy of accounting for retirements only serves to further weaken the reliability of the Company's net salvage values (Attorney General Reply Brief at 30).

As a remedy to these alleged flaws in Fitchburg's depreciation study, the Attorney General identifies a number of electric plant accounts where the Company's net salvage value estimates depart from an incremental approach. By restricting the change in salvage values to ten percent of the difference from the previous study, the Attorney General proposes a range of salvage estimates that he considers more consistent with the incremental approach used to determine average service lives (Attorney General Brief at 43-44).[59] The Attorney General

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[59] The Attorney General proposes the use of the following salvage values by electric plant account: Account 352 (negative 15.8 percent); Account 353 (negative 0.5 percent), Account 355 (negative 19.5 percent); Account 356 (negative 12.8 percent); Account 362 (1.8 percent); Account 364 (negative 21.9 percent); Account 365 (negative 16.9 percent); Account 366 (negative 16.5 percent); Account 367 (negative 16.2 percent); Account 368 (3.6 percent); Account 369 (negative 27.0 percent); Account 371 (negative 9.2 percent); and Account 373 (negative 16.2 percent) (Attorney General Brief at 43).

urges the Department to reject the Company's net salvage estimates in favor of his proposed salvage estimates (id. at 44).

In the alternative, the Attorney General states that if the Department decides to accept the Company's use of FIFO accounting in establishing net salvage values, he identifies four gas plant accounts and ten electric plant accounts that he claims do not rely on FIFO accounting (Attorney General Reply Brief at 31-32). The Attorney General argues that the Department should reject the Company's proposed ASLs for these accounts as overly-reliant on the witness's experience, and instead replace them with ASLs based on the results of the statistical analyses (id.).[60]

b. Fitchburg

The Company argues that the Attorney General fails to demonstrate any significant flaws in its depreciation study, and urges the Department to accept the study and proposed accrual rates (Fitchburg Brief at 158). Although depreciation analysis relies extensively on statistical analysis, Fitchburg emphasizes that the key role of the depreciation expert is life-estimation, not life-analysis (Exhs. FGE JHA-1, at 88 (gas); FGE JHA-1, at 94 (electric)). The Company states that in order properly to interpret the results of the statistical analyses, it is necessary to have an understanding of the types of equipment being examined and the types

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[60] For the Company's electric plant accounts, the Attorney General proposes the use the following ASLs: Account 353 (52 years); Account 355 (87 years); Account 361 (74 years); Account 362 (48 years); Account 364 (45 years); Account 365 (76 years), Account 366 (64 years); Account 367 (70 years); Account 369 (66 years); Account 370 (51 years) (Attorney General Reply Brief at 31-32). For gas plant accounts, the Attorney General proposes the following ASLs by account: Account 311 (50 years); Account 320 (15 years); Account 367 (100 years); Account 383 (52 years) (id.).

of life analyses employed, among other considerations (Exhs. FGE JHA-1, at 88 (gas); FGE JHA-1, at 94 (electric)). The Company defends its witness as a well-qualified expert in the field of depreciation who has testified numerous times before the Department and other state regulatory commissions, and has been previously recognized by the Department as presenting thorough and well-documented depreciation studies (id. at 159, citing D.P.U. 89-114/ 90-331/91-80 Phase One at 52; D.P.U. 88-67 (Phase One) at 159). Fitchburg contends that, just as the preparer of the Company's 1998 Study applied his expertise and knowledge in developing accrual rates for the Company's gas division, its witness here used his knowledge and expertise in this proceeding, which included reviewing the 1998 Study (Fitchburg Brief at 161-162, citing Exhs. FGE JHA-1, at 66 (gas); FGE JHA-1, at 71 (electric); Fitchburg Reply Brief at 31-32, citing Tr. 2, at 237). Fitchburg also argues that, contrary to the Attorney General's arguments, the variances between the Department's findings in D.T.E. 98-51 and the Company's proposed gas accrual rates in this case are insignificant (Fitchburg Reply Brief at 32-33).

Fitchburg disputes the Attorney General's claims that the Company failed to follow Department directives to perform a gas main study by material type (Fitchburg Brief at 165). According to the Company, by the time the Department issued its directive in D.T.E. 01-56, Fitchburg had virtually completed the present depreciation study (id.). Additionally, the Company asserts that the Department's Order in D.T.E. 01-56 was not intended as a general directive to gas utilities, but specific only to The Berkshire Gas Company ("Berkshire") (id.). Notwithstanding this interpretation, Fitchburg acknowledges the Department's preference in

the area of gas main material typing, and will conduct this analysis as part of its next depreciation study (id.).

Concerning the Company's ASL estimates, Fitchburg argues that the depreciation study was conducted in a manner consistent with the approach previously approved by the Department (id. at 161).[61] The Company maintains that the Attorney General has misconstrued its incremental approach to life analyses as an absolute rule (id. at 163). Rather, Fitchburg contends that it evaluates statistical changes in ASLs using a combination of expert judgment and, if appropriate, adjusts the ASL by ten to 20 percent (id.).

Moreover, the Company argues that the Attorney General misapprehends the distinction between the analytical technique for ASL estimates and net salvage value estimates (id. at 164). The Company contends that, while the incremental approach is relevant to ASL estimates that can be affected by "esoteric statistical phenomena," dramatic increases in disposal costs over the past 20 years are quantifiable and are expected to increase over time with the passage of more stringent environmental regulations (Fitchburg Brief at 164; Fitchburg Reply Brief at 33). The Company defends its consistent use FIFO accounting for pricing its retirements as a recognized accounting method which was approved by the Department in D.T.E. 98-51 (Fitchburg Reply Brief at 34, citing Tr. 2, at 179-181; D.T.E. 98-51, at 85).

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[61] The Company suggests that the Department has previously approved of the use of the SPR-BAL technique as a starting point in the life estimation process, combined with the knowledge and engineering judgment of the depreciation expert (Fitchburg Brief at 161).

3. Analysis and Findings

a. Standard of Review

Depreciation expense allows a company to recover its capital investments in a timely and equitable fashion over the service lives of the investments. D.P.U. 96-50 (Phase I) at 104; Milford Water Company, D.P.U. 84-135, at 23 (1985); D.P.U. 1350, at 97; D.T.E. 98-51, at 75. Depreciation studies rely not only on statistical analysis but also on the judgment and expertise of the preparer. The Department has held that when a witness reaches a conclusion about a depreciation study which is at variance with that witness's engineering and statistical analysis, the Department will not accept such a conclusion absent sufficient justification on the record for such a departure. D.P.U. 92-250, at 64; D.P.U. 89-114/90-331/91-80 Phase One at 54-55 (1991); Commonwealth Electric Company, D.P.U. 88-135/151, at 37 (1990); D.T.E. 01-56, at 93. It is also necessary to go beyond the numbers presented in a depreciation study and consider the underlying physical assets. D.P.U. 92-250, at 64; Berkshire Gas Company, D.P.U. 905, at 13-15 (1982); Massachusetts Electric Company, D.P.U. 200, at 21 (1980).

b. Application of 1998 Study

The Attorney General suggests that the Company has engaged in "opinion shopping" because the Company retained a different witness for this proceeding than the witness who prepared the depreciation study in D.T.E. 98-51. However, the electric accrual rates contained in the 1998 Study were not the subject of investigation in D.T.E. 98-51.

D.T.E. 99-118, at 51; D.T.E. 98-51, at 69-98. Therefore, there is no basis on which to compare the results of the 1998 Study with the depreciation study presented in this proceeding. Also, the Attorney General's reasoning runs counter to the Department's requirement that companies relying on outside services engage in a competitive bidding process. Fitchburg relied on a competitive bidding process for the preparation of its depreciation studies both in this proceeding and in D.T.E. 98-51 (Exh. FGE MHC-1, at 61 (gas)). D.T.E. 98-51, at 60. The fact that different outside firms were successful bidders on these different occasions is not a basis to discard the results of one study in favor of the other. Accordingly, the Department declines to reject Fitchburg's depreciation study on the basis of its use of a different witness than presented in D.T.E. 98-51.

c. Gas Mains Material Study

The Attorney General contends that by failing to perform a gas main materials study, Fitchburg has failed to follow the Department's directives in D.T.E. 01-56. The Department ordered Berkshire to prepare such a study. D.T.E. 01-56, at 95. Assuming that the Department's directives on January 31, 2002 could fairly be construed as a signal that gas utilities would be expected to provide a gas mains material analysis as part of their future depreciation studies, the Company's witness began work on Fitchburg's depreciation study during the fourth quarter of 2001, for delivery to Fitchburg by March 27, 2002 (Tr. 2, at 177-178, 283). The addition of a gas main materials analysis at this late stage of the project would have required considerable data collection (id. at 185-186, 283). We find that it would have been unreasonable to require a gas main materials analysis as part of this depreciation

study in light of the timing of issuance of D.T.E. 01-56. Accordingly, the Department will not reject Fitchburg's depreciation study because it lacks a gas main materials analysis.[62] The Company's proposed accrual rate for gas mains, found in Account 367, is discussed below.

d. Salvage Value Method

The Attorney General requests that the Department reject Fitchburg's depreciation study because of the Company's failure to use an incremental approach in the calculation of net salvage values, as was used to determine plant ASLs. The Attorney General misapprehends the underlying reasons for variations in ASLs and net salvage values. Unlike ASL estimates, where incremental changes between depreciation studies may be appropriate in order to compensate for statistical variations, net salvage values are not determined statistically, but are determined qualitatively, after taking into account both historic disposal experience and projected cost trends (Exhs. FGE JHA-1, at 84 (gas); FGE JHA-1, at 90 (electric)).

Concerning Fitchburg's reliance on FIFO accounting in the calculation of net salvage value estimates, the Department has recognized that FIFO accounting has the potential to distort the results of statistical analysis. D.T.E. 98-51, at 85, 87, 89. The Company's witness recognized this possibility and took it sufficiently into consideration in developing the net salvage value estimates (Exh. DTE 1-3). Therefore, the Department will not reject Fitchburg's depreciation study because of the Company's reliance on FIFO accounting.

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[62] On brief, Fitchburg stated that it would provide a gas main materials study as part of its next depreciation study in its next rate proceeding (Fitchburg Brief at 165). The Company is directed to submit a gas main materials analysis, along with proposed material-specific accrual rates, as part of its next rate proceeding.

Nevertheless, the Department's analysis of the Company's proposed accrual rates will take into consideration the effect of FIFO accounting on ASLs.

e. Gas Depreciation Accrual Rates

i. Account 311

The Company proposes to retain the existing 35-year R 4.0 curve for Account 311 - LPG Equipment, and to apply a salvage factor of 7.0 percent, resulting in a proposed accrual rate of 3.15 percent (Exh. FGE JHA-1, at 104-105, 116 (gas)). While the Attorney General proposes an ASL of 50 years for this account, its limited retirement history leads to unreliable statistical results (Exhs. FGE JHA-1, at 104 (gas); DTE 1-19, Att. 1, at 3-4). The Department finds that the Company has properly interpreted the results of its statistical analyses and accepts the proposed accrual rate for Account 311.

ii. Account 320

The Company proposes to retain the existing 20-year L 0.0 curve for Account 320 - Other Equipment, and to apply a salvage factor of zero percent, resulting in a proposed accrual rate of 5.14 percent (Exh. FGE JHA-1, at 105, 116 (gas)). While the Attorney General proposes an ASL of 15 years for this account, its limited retirement history results in unreliable statistical results, with insufficient conformance and retirement indices (Exhs. FGE JHA-1, at 104 (gas); DTE 1-18, Att. 1, at 2). In addition, the trend towards electronic equipment in this account also reduces the expected service lives of items in this account (Exhs. FGE JHA-1, at 12 (gas); DTE 1-6). Therefore, the Department finds that the Company

has properly interpreted the results of its statistical analyses and accepts the proposed accrual rate for Account 320.

iii. Account 367

The Company proposes to apply a 65-year R 3.0 curve for Account 367 - Mains, and to apply a negative salvage value of 120 percent, resulting in a proposed accrual rate of 3.82 percent (Exh. FGE JHA-1, at 106, 116 (gas)). Fitchburg's retirement history is driven extensively by its mains replacement program, under which it is obligated to replace at least 10,000 feet per year of cast-iron main (Exhs. AG 1-19 (gas); DTE 1-37; Tr. 10, at 1250-1251). While the Attorney General proposes an ASL of 100 years for this account as consistent with the Company's use of FIFO accounting, we find that this ASL is beyond the range of reasonableness, particularly in view of Fitchburg's cast-iron mains replacement program and the effects of this replacement program on the Company's SPR-BAL analyses (Exh. DTE 1-3). Moreover, the Company's proposed ASL is consistent with that approved in D.T.E. 98-51.

The Company's proposed salvage factor of negative 120 percent appears conservative in relation to recent history and Fitchburg's attempts to recognize the effects of FIFO accounting on historic retirement dollars (Exhs. DTE 1-3; DTE 1-19, Att. 1, at 9-10). However, we find that the Company's cast-iron mains replacement program is producing an overstated retirement history for the overall assets in this account. In D.T.E. 98-51, at 85, the Department approved a salvage factor of negative 80 percent for Account 367. In recognition of both the recent retirement history and the effect of the cast-iron mains replacement program

on the ASL for Account 367, a partial increase in the Company's proposed salvage factor is warranted. Therefore, the Department directs the Company to use a 100 percent negative net salvage rate, producing an accrual rate of 3.44 percent for Account 367.

iv. Account 383

The Company proposes to apply a 40-year S 4.0 curve for Account 383 - House Regulators, and to apply a salvage factor of zero percent, resulting in a proposed accrual rate of 4.66 percent (Exh. FGE JHA-1, at 108, 116 (gas)). While the Attorney General proposes an ASL of 52 years for this account, this account exhibits almost no retirement activity because the Company combined it with Account 382 - Meter Installations, during the 1990s (Tr. 2, at 278-279). This lack of retirement activity renders statistical analyses virtually useless for application. The plant included in this account is similar to that found in Account 382 - Meter Installations, where the Company uses a 40-year ASL. Therefore, the Department finds that the Company has properly interpreted the results of its statistical analyses and accepts the proposed accrual rate for Account 383.

f. Electric Depreciation Accrual Rates

If a depreciation accrual rate is set too low, capital costs will be underrecovered prior to the retirement of the plant. This resulting underrecovery would make future ratepayers subsidize past and current ratepayers, in that past and current ratepayers would have received the benefits of the plant without their appropriate share of the costs of that plant. Boston Gas Company, D.P.U. 19470, at 51 (1978). Where the Department determines that underaccruals have developed because of neglectful practices of management, ratepayers should not bear the

financial burden of such negligence. D.P.U. 19470, at 49-50; Wannacomet Water Company, D.P.U. 13525, at 20 (1962).

In a previous proceeding, Fitchburg represented that its electric plant depreciation accrual rates were inadequate and have produced a deficiency in its depreciation reserve. D.T.E. 99-118, at 50. However, the Company has made little effort until now to remedy its underaccruals, even to the point of stating its intent not to implement higher accrual rates despite seeking their use for the purposes of the earnings investigation in D.T.E. 99-118. D.T.E. 99-118, at 52. Although Fitchburg does not seek a specific amortization of its underaccruals, as had been proposed in D.T.E. 98-51, the proposed accrual rates incorporate the need to cover the theoretical reserve over a shorter period of time. This shorter recovery period has the potential effect of compelling future ratepayers to subsidize current ratepayers. At the same time, rejection of the Company's proposed accrual rates may only serve to exacerbate this cross-subsidization. As a result, the Company's proposed electric accrual rates warrant close examination. Therefore, we will examine those instances where the Attorney General identifies proposed ASLs that differ from the results of the Company's statistical analyses, as well as those accounts where the Attorney General proposes the use of different salvage values.

i. Account 352

The Company proposes to retain the existing 40-year S 4.0 curve for Account 352 - Transmission Structures, and to decrease the salvage factor from negative ten percent to negative 50 percent, resulting in a proposed accrual rate of 2.61 percent (Exhs. FGE JHA-1,

at 100, 119 (electric); AG 4-1, at V-6). Fitchburg reported that there have been no retirements and an infrequent history of additions during the period 1970 through 2000 (Exh. FGE-JHA-1, at 100 (electric)). Consequently, no SPR-BAL life analysis was attempted by the Company (id.).

While the Department finds that the Company has properly interpreted the data in its decision to retain an ASL of 40 years, this account includes assets such as roadway, parking curbs, permanent paving of roadways, grading and filling of land, shrubbery and landscaping (Tr. 2, at 252-254). The permanent nature of these asset types leaves us unpersuaded that a negative 50 percent salvage value estimate is appropriate. The limited retirement data for this account suggest a negative net salvage of 68 percent (Exh. DTE 1-19, Att. 2, at 1). In recognition of this evidence, the Department considers a partial increase in salvage costs to be warranted for this account. Therefore, the Department directs the Company to use a 30 percent negative net salvage rate, producing an accrual rate of 1.81 percent for Account 352.

ii. Account 353

The Company proposes to increase the ASL for Account 353 - Transmission Station Equipment by replacing the existing 40-year R 4.0 curve with a 42-year S 5.0 curve, and to decrease the salvage factor from five percent to negative 40 percent, resulting in a proposed accrual rate of 4.16 percent (Exhs. FGE JHA-1, at 100-101, 119 (electric); AG 4-1, at V-6). Although the Attorney General proposes an ASL of 52 years based on the best fit of the statistical data, the oldest surviving property in this account is only 36 years old, and there is

no evidence that this type of equipment has an ASL approaching 52 years (Exh. FGE JHA-1, at 100-101 (electric)). The Company's proposed salvage values are conservative in view of the recent retirement history of this account, with salvage values approaching negative 200 percent, as well as the similarity of this equipment with that found in Account 362 (Exh. DTE 1-19, Att. 2, at 5-6). Therefore, the Department finds that the Company has properly interpreted the results of its statistical analyses and accepts the proposed accrual rate for Account 353.

iii. Account 355

The Company proposes to increase the ASL for Account 355 - Transmission Towers and Fixtures by replacing the existing 35-year S 5.0 curve with a 40-year R 3.0 curve, and to decrease the salvage factor from negative five percent to negative 100 percent, resulting in a proposed accrual rate of 2.61 percent (Exhs. FGE JHA-1, at 101, 119 (electric); AG 4-1, at V-6). Although the Attorney General proposes an ASL of 87 years based on the best fit of the statistical data, the retirement indices for this account indicate a poor fit with the statistical data (Exhs. FGE JHA-1, at 101 (electric); DTE 1-18, Att. 2, at 4-6). Moreover, the Company's proposed salvage values are conservative in view of the recent retirement history of this account, with salvage values approaching negative 200 percent, and the similarity of this type of equipment with that found in Account 364 (Exhs. FGE JHA-1, at 101 (electric); DTE 1-19, Att. 2, at 11-12). Therefore, the Department finds that the Company has properly interpreted the results of its statistical analyses and accepts the proposed accrual rate for this account.

iv. Account 356

The Company proposes to increase the ASL for Account 356 - Overhead Conductors and Devices by replacing the existing 35-year R 1.0 curve with a 40-year R 2.0 curve, and to decrease the salvage factor from zero percent to negative 80 percent, resulting in a proposed accrual rate of 5.14 percent (Exhs. FGE JHA-1, at 101-102, 119 (electric); AG 4-1, at V-6). The SPR-BAL analyses for this account support the proposed ASL (Exh. DTE 1-18, Att. 2, at 7-9). While the Attorney General proposes a salvage factor of negative 12.8 percent, the Company's retirement experience indicates salvage factors far in excess of this level, ranging between negative 61.2 percent and negative 212.5 percent (Exh. DTE 1-19, Att. 2, at 13-14). In view of this salvage history, a negative 80 percent salvage factor is reasonable. Therefore, the Department finds that the Company has properly interpreted the results of its statistical analyses and accepts the proposed accrual rate.

v. Account 361

The Company proposes to decrease the ASL for Account 361 - Distribution Structures and Improvements by replacing the existing 40-year S 4.0 curve with a 35-year L 1.0 curve, and to decrease the salvage factor from negative five percent to negative 50 percent, resulting in a proposed accrual rate of 4.27 percent (Exhs. FGE JHA-1, at 102, 119 (electric); AG 4-1, at V-6). Fitchburg reported that there have been minimal retirements for this account during the period 1970 through 2000, and, therefore, placed little weight on the statistical analyses (Exh. FGE-JHA-1, at 102 (electric)). The Department finds that the Company has properly interpreted the results of its statistical analyses in its selection of the proposed ASL.

Consistent with our treatment of the proposed salvage value in Account 352, the Company is directed to use a salvage value of negative 30 percent, resulting in an accrual rate of 3.61 percent for Account 361.

vi. Account 362

The Company proposes to increase the ASL for Account 362 - Distribution Station Equipment by replacing the existing 35-year R 4.0 curve with a 46-year S 5.0 curve, and to decrease the salvage factor from ten percent to negative 40 percent, resulting in a proposed accrual rate of 3.16 percent (Exhs. FGE JHA-1, at 102, 119 (electric); AG 4-1, at V-6). While the best statistical fits indicate an ASL of approximately 48 to 52 years over a ten-year analysis, modern station equipment does not have the same useful life as station equipment installed some 30 to 50 years ago, in part because of the replacement of electro-mechanical relays with shorter-lived electronic relays (Exh. FGE JHA-1, at 102 (electric); DTE 1-6; DTE 1-18, Att. 2, at 13). Additionally, while electric utilities were formerly able to sell retired transformers, it is more common today to pay for the disposal of this oil-saturated equipment (Exhs. FGE-JHA-1, at 105 (electric); DTE 1-19, Att. 2, at 23; Tr. 2, at 264-265). The Department finds that the Company has properly interpreted the results of its statistical analyses and accepts the proposed accrual rate for Account 362.

vii. Account 364

The Company proposes to revise the ASL for Account 364 - Distribution Poles, Towers and Fixtures by replacing the existing 40-year R 2.0 curve with a 40-year S 2.0 curve, and to

decrease the salvage factor from negative ten percent to negative 100 percent, resulting in a proposed accrual rate of 5.95 percent (Exhs. FGE JHA-1, at 103, 119 (electric); AG 4-1, at V-6). The SPR-BAL analyses for this account result in an ASL greater than 50 years, which the Company demonstrates is unrealistic (Exh. DTE 1-18, Att. 2, at 16-18). The Company's recent retirement experience in this account indicates salvage values ranging from negative 127.4 percent to negative 190.4 percent (Exhs. FGE JHA-1, at 103 (electric); DTE 1-19, Att. 2, at 15-17). The Department finds that the Company has properly interpreted the results of its statistical analyses and accepts the proposed accrual rate for Account 364.

viii. Account 365

The Company proposes to retain the existing 40-year R 4.0 curve for Account 365 - Overhead Conductors and Devices, and to decrease the salvage factor from negative five percent to negative 85 percent, resulting in a proposed accrual rate of 5.4 percent (Exhs. FGE JHA-1, at 103, 119 (electric); AG 4-1, at V-6; Tr. 2, at 165). While the Attorney General proposes an ASL of 76 years, the results of the Company's statistical analyses indicate a range between 37 and 77 years for the 1970 through 2000 period, and greater ASLs for the 1991 through 2002 period (Exh. DTE 1-18, Att. 2, at 19-21). Moreover, the Company's proposed net salvage value is conservative when compared to recent experience, where values range from negative 127 percent to negative 190 percent (Exh. DTE 1-19, Att. 2, at 17). Therefore, the Department finds that the Company has properly interpreted the results of its statistical analyses and accepts the proposed accrual rate for Account 365.

ix. Account 366

The Company proposes to retain the existing 60-year S 6.0 curve for Account 366 - Underground Conduit, and to decrease the salvage factor from negative five percent to negative 80 percent, resulting in a proposed accrual rate of 3.54 percent (Exhs. FGE JHA-1, at 104, 119 (electric); AG 4-1, at V-6). While the Attorney General proposes an ASL of 64 years based on the average best statistical fit, the retirement volumes in this account are minimal, and the net salvage history has exceeded negative 120 percent (Exhs. FGE JHA-1, at 104 (electric); DTE 1-19, Att. 2, at 19) Therefore, the Department finds that the Company has properly interpreted the results of its statistical analyses and accepts the proposed accrual rate for Account 366.

x. Account 367

The Company proposes to retain the existing 40-year S 5.0 curve for Account 367 - Underground Conductors and Devices, and to decrease the salvage factor from negative five percent to negative 50 percent, resulting in a proposed accrual rate of 3.93 percent (Exhs. FGE JHA-1, at 104, 119 (electric); AG 4-1, at V-7). Although the Attorney General contends that an ASL of 70 years is at the lower end of the statistical range for this account, the Company's experience with failures in underground cable indicates that the earliest installations are reaching the end of their useful life, and that increasing quantities of the associated conductors are expected to be replaced over the next ten years (Exh. FGE JHA-1, at 104 (electric)). The Department finds that the Company has properly interpreted the results of its statistical analyses and accepts the proposed accrual rate for Account 367.

xi. Account 368

The Company proposes to increase the ASL for Account 368 - Line Transformers by replacing the existing 35-year R 0.5 curve with a 42-year R 1.0 curve, and to decrease the salvage factor from five percent to negative ten percent, resulting in a proposed accrual rate of 2.66 percent (Exhs. FGE JHA-1, at 105, 119 (electric); AG 4-1, at V-7). The more frequent history of retirements for this account render the statistical analyses more reliable than many other transmission accounts and some distribution plant accounts. While there appear to have been zero salvage costs in recent years, utilities must now pay for the disposal of retired transformers (Exhs. FGE JHA-1, 105 (electric); DTE 1-19, Att. 2, at 23; Tr. 2, at 264-265). Therefore, the Department finds that the Company has properly interpreted the results of its statistical analyses and accepts the proposed accrual rate for Account 368.

xii. Account 369

The Company proposes to revise the ASL for Account 369 - Services by replacing the existing 35-year R 0.5 curve with a 40-year S 3.0 curve, and to decrease the salvage factor from negative 15 percent to negative 125 percent, resulting in a proposed accrual rate of 6.41 percent (Exhs. FGE JHA-1, at 105, 119 (electric); AG 4-1, at V-7). While the Attorney General proposes a salvage factor of negative 27 percent, the Company's retirement history demonstrates salvage factors in recent years far exceeding this level, e.g., upwards of negative 190 percent (Exh. DTE 1-19, Att. 2, at 25-26). The Department finds that the Company has properly interpreted the results of its statistical analyses and accepts the proposed accrual rate for Account 369.

xiii. Account 370

The Company proposes to retain the existing 35-year R 4.0 curve for Account 370 - Meters, and retain the existing salvage factor of zero percent, resulting in a proposed accrual rate of 1.88 percent (Exhs. FGE JHA-1, at 105-106, 119 (electric); AG 4-1, at V-7). While the Attorney General's proposed ASL of 51 years is representative of the best statistical fit, there is an ongoing conversion in the industry from electro-mechanical to electronic meters, the later of which have a shorter average life (Exh. FGE JHA-1, at 105 (electric)). Therefore, the Department finds that the Company has properly interpreted the results of its statistical analyses and accepts the proposed accrual rate for Account 370.

g. Conclusion

For the Company's gas division, in order to calculate the annual depreciation expense based on the new average service life that the Department has determined for Account 367, we have applied the depreciation accrual rates as determined above to the Company's respective test year-end depreciable gas plant in service balance. Based on this analysis, the Department finds that the Company's annual depreciation expense for its gas division is $1,742,617, rather than the proposed $1,815,757. Accordingly, Department will reduce the Company's proposed cost of service for its gas division by $73,140.

For the Company's electric division, the Department has excluded Sawyer I from Fitchburg's proposed rate base. See Section III(A)(3), above. Consistent with this ratemaking treatment, a corresponding reduction to depreciation expense is necessary. D.P.U. 88-67 (Phase I) at 160-161. In order to determine the appropriate depreciation expense for

Account 362, the Department has excluded Fitchburg's gross plant investment in Sawyer I of $1,033,889 from the Company's year-end plant balance in Account 362 of $9,679,954, producing a revised gross plant balance of $8,646,065 for this account (Exh. FGE Update (electric), Att. 1, at 33; Fitchburg 2001 Annual Return to the Department at 207 (electric)). In order to calculate the annual depreciation expense based on the new average service lives that the Department has determined for Accounts 352 and 361, we have applied the depreciation accrual rates as determined above to the Company's respective test year-end depreciable electric plant in service balance, adjusted for the exclusion of Sawyer I. Based on this analysis, the Department finds that Fitchburg's annual depreciation expense for its electric division is $3,059,589, rather than the Company's proposed $3,092,453. Accordingly, the Department will reduce the Company's proposed cost of service for its electric division by $32,864.

H. Amortization Expense

1. Introduction

During the test year, Fitchburg booked $44,279 in amortization expense for its gas division (Exh. FGE Update (gas), Att. 2, at 38). These amortizations consisted of (1) $23,534 for computer software, (2) $12,654 for customer information service ("CIS") development, (3) $3,213 for website development, (4) $434 for technology services development, and (5) $4,444 in LERS/Logica[63] system development (id.). Based on the Company's evaluation of

[63] LERS/Logica is a program used to report load allocations among competitive suppliers to the Independent System Operator New England, Inc. (Tr. 3, at 363).

the required changes in its amortization expense, Fitchburg proposes to increase its test year amortization expense related to its gas division by $82,011, representing pro forma amortizations of (1) $26,526 for computer software, (2) $87,095 for CIS development, (3) $9,163 for website development, (4) $3,506 for technology services development, and (5) the elimination of LERS/Logica system development (Exhs. FGE MHC-1, at 70 (gas); DTE 1-12; FGE Update (gas), Att. 2, at 38; Tr. 8, at 926).

During the test year, Fitchburg booked $62,370 in amortization expense for its electric division (Exh. FGE Update (electric), Att. 1, at 34). These amortizations consisted of (1) $13,819 related to the proceedings in D.T.E. 99-118, (2) $7,426 for computer software, (3) $24,959 for CIS development, (4) $6,865 for website development, (5) $1,252 for technology services development, and (6) $8,039 in LERS/Logica system development (id.). Based on the Company's evaluation of the required changes in its amortization expense, Fitchburg proposes to increase its test year amortization expense related to its electric division by $192,547, representing pro forma amortizations of (1) $55,275 related to D.T.E. 99-118, (2) $9,078 for computer software, (3) $100,974 for CIS development, (4) $10,623 for website development, (5) $4,065 for technology services development, and (6) $74,902 for LERS/Logica system development (Exhs. FGE MHC-1, at 72 (electric); FGE Update (electric), Att. 1, at 34).

2. Positions of the Parties

a. Attorney General

The Attorney General opposes any increase in amortization expense (Attorney General Brief at 25). The Attorney General argues that Fitchburg applies inconsistent amortization periods to its similar software and technology assets (Attorney General Brief at 24, citing Exh. AG 7-65 (electric); Tr. 9, at 1044; RR-DTE-4). According to the Attorney General, the Company applies amortization periods ranging from 36 to 101 months for similar software and technology assets without any justification for these differing periods (Attorney General Reply Brief at 16). The Attorney General argues that the Company should apply consistent amortization periods for similar technology assets (Attorney General Brief at 24; Attorney General Reply Brief at 16).

The Attorney General also maintains that the Company failed to begin amortization of its software and technology purchases and upgrades in the respective year of the purchase or upgrade (Attorney General Brief at 24; Attorney General Reply Brief at 16-17). For example, the Attorney General contends that, although the Company upgraded an accounting system in 2000, and upgraded its website in 2001, it did not amortize any of these costs in those years (Attorney General Brief at 24, citing Tr. 7, at 890-892, 925). Further, the Attorney General argues that the Company provided contradictory information regarding its CIS amortization (id., citing Exh. AG 7-5 (electric); RR-DTE-4; Tr. 8, at 910-912). The Attorney General contends that the Company should be required to begin amortizing its software and technology assets from the in-service date of the asset (Attorney General Brief at 24).

Finally, the Attorney General argues that the Company's software and technology assets, such as its CIS, have been used by Unitil employees and other affiliate employees without compensation to Fitchburg (id., citing Tr. 14, at 1770-1772). The Attorney General requests that the Department direct the Company to allocate the costs of its software and technology assets among all affiliates that use or otherwise benefit from these assets (Attorney General Brief at 25; Attorney General Reply Brief at 17).

b. Fitchburg

The Company argues that its proposed amortization expense is appropriate (Fitchburg Brief at 100). Concerning its amortization of D.T.E. 99-118 litigation costs, Fitchburg contends that while Department precedent requires that regulatory litigation expense be normalized, it incurred these costs in the context of a rate review initiated by the Attorney General pursuant to G.L. c. 164, § 93, and that the Company had no control over this expense (id. at 101). The Company distinguishes this factual situation from those associated with other periodically recurring expenses that would be under a utility's control (id. at 100-101, citing D.P.U. 95-118, at 122). Fitchburg argues that failure to include the unamortized balance in its cost of service is tantamount to saying that the Company is not entitled to these expenses, and that the Department should allow recovery of this expense as consistent with its policy of sharing the burdens and benefits of rate litigation between shareholders and ratepayers (Fitchburg Brief at 101).

Concerning its remaining amortizations, the Company maintains that, while the Attorney General takes overall issue with the different amortization periods, he has failed to

challenge the reasonableness of any particular addition or the length of amortization period proposed (id. at 102). The Company contends that excessively lengthy amortization periods would serve to discourage utilities from innovations that improve service (id. at 101). Fitchburg argues that it proposed amortization periods of 36 to 120 months for its software applications based on its technical and operational judgment as to the usefulness of the particular application (Fitchburg Reply Brief at 22, citing Tr. 3, at 337-343, 359-366; Tr. 8, at 908-909, 918). The Company argues that the Department has accepted this "useful life" determination process before (Fitchburg Brief at 23, citing D.P.U. 95-40, at 63). The Company analogizes its determination of the useful life of its software costs to the determination in a depreciation study of the useful lives of plant accounts (id. at 23, n.13).

Concerning the Attorney General's assertion that the amortization of software upgrades and purchases should commence in the year they are purchased, the Company argues that the year of purchase for a particular asset cannot automatically be deemed the in-service year for that item, with some project costs appropriately deferred during their development stage (Fitchburg Brief at 101-102, citing Tr. 8, at 923, 926-27, RR-AG-26; Fitchburg Reply Brief at 23). The Company argues that, contrary to the Attorney General's claims of discrepancies as to the in-service date of its CIS, the record demonstrates that the in-service date of its CIS was March 1, 1998 (Fitchburg Reply Brief at 23, citing Exhs. AG 7-5 (electric); AG 7-65 (electric); Tr. 8, at 911, 918; RR-DTE-4).

Turning to the allocation of software costs among affiliates, Fitchburg argues that these costs, including CIS costs, are allocated to each of Unitil's affiliates by Unitil Service

(id. at 24, citing Exhs. FGE MHC-5, at 3; AG 7-65). In specific reference to its CIS, the Company argues that the CIS was designed and developed for managing information related to the customers of each Unitil utility affiliate, including Fitchburg (id. at 24). Consequently, the Company maintains that Unitil employees properly use the CIS in order to provide information and service to Unitil's distribution affiliates (id., citing Tr. 14, at 1771-1772).

3. Analysis and Findings

The Company argues that D.T.E. 99-118 was not incurred of its own choosing, but resulted from the Attorney General's petition under G.L. c. 164, § 93. An earnings investigation under G.L. c. 164, § 93 is somewhat different from a G.L. c. 164, § 94 rate case, and proceedings under these two sections should not be "confused or conflated." D.T.E. 99-118, at 9 (2001). However, other than in specific instances where the Department has approved a cost-tracking mechanism, rates are not fully reconciling. D.P.U. 91-106/138, at 20. Fitchburg's expenses relative to the investigation in D.T.E. 99-118 was but one of the many expenses relied upon as a basis for the setting of rates in that proceeding. More significantly, the Company itself proposes to include D.T.E. 99-118 as a rate case in the calculation of its rate case normalization period (Exh. FGE-MHC-1 (electric), Sch. MHC-7-13; FGE Update (electric), Att. 1, at 34). The Department finds no reason to accord the Company's regulatory litigation expense in D.T.E. 99-118 special consideration. Accordingly, the Department will reduce the Company's proposed amortization expense related to electric operations by $55,275. This outcome strikes the balance of sharing the burdens and benefits of rate litigation between shareholders and ratepayers.

Concerning Fitchburg's remaining amortizations, the Department recognizes that technological improvements may render information systems, such as CIS, obsolete after a relatively short period of time. An excessive amortization period would tend to discourage utilities from innovations that serve to improve service to their customers. At the same time, it is reasonable to expect that a utility's information systems should remain in service for some years after inception and benefit future customers. Therefore, an unduly short amortization is inappropriate because it shifts a disproportionate amount of the costs of these projects to current customers. D.P.U. 95-40, at 63; Boston Gas Company, D.P.U. 93-60-D at 4 (1994).

The Company has submitted a detailed description of the proposed amortization periods for its technology and software projects (Exh. AG 7-65; RR-DTE-4; Tr. 9, at 1041-1043). While Fitchburg has a standard amortization period of 60 months for most software applications, several applications have amortization periods ranging from 36 to 120 months (Exh. AG 7-65; RR-DTE-4; Tr. 3, at 338). The specific amortization periods are assigned by the Company controller, taking into consideration the purpose of the particular application and a goal of consistency among and between similar applications (Tr. 9, at 1047-1048). The Department finds that the amortization periods selected by Fitchburg strike an appropriate balance between the need to continue improvements in service technology and the need to maintain intergenerational equity. D.P.U. 95-40, at 63; D.P.U. 93-60-D at 4. Therefore, the Department accepts the Company's proposed software amortization periods.

Concerning the appropriate starting date for amortizing the Company's software applications, a period of time will occur between the purchase date and the in-service date for a

particular application, because of the need for data integration and side-by-side testing of the new and legacy applications (Tr. 8, at 906-909). This delay between acquisition and implementation is inevitable, particularly in the case of information system technologies. See D.P.U. 93-60, at 26-34. It would be inconsistent to commence amortizing information system technologies during their development stage, before they become used and useful to ratepayers. Therefore, the Department finds that the Company has appropriately selected the beginning dates of its software amortization periods.

Regarding the allocation of software and technology assets among affiliates, Unitil does not derive any direct benefit from the use of these assets (Tr. 14, at 1770-1772). Those Unitil employees who use the CIS do so in their capacity of providing support services to Fitchburg, not in their capacity as Unitil employees per se (id.). The Company and its affiliates are allocated a portion of CIS costs based on a revenue allocator (id. at 1772). Accordingly, the Department finds that the Attorney General's concerns on this issue are unsupported.

Based on the foregoing analysis, the Department accepts the Company's proposed amortization expense related to its gas operations. The Department will reduce the Company's proposed amortization expense related to its electric operations by $55,275.

I. Meter Removal Expense

1. Introduction

During the test year, the Company incurred $56,164 in expenses related to the removal of 2,944 gas meters, as well as $21,715 in expenses related to the removal of 1,426 electric

meters (RR-AG-11). These meters removals were associated with straight removals, change-outs, and systematic and periodic meter tests (id.).

2. Positions of the Parties

a. Attorney General

The Attorney General asserts that the Company improperly expensed the cost of its meter removals, particularly those meters that are to be retired (Attorney General Brief at 38). The Attorney General contends that, under the Department's Uniform System of Accounts, the Company is only allowed to expense meter removal costs when the meter is removed for resetting and future replacement, which he characterizes as essentially a maintenance function (Attorney General Brief at 38; Attorney General Reply Brief at 25). The Attorney General maintains that, without exception, the Uniform System of Accounts directs companies to book plant removal costs to accumulated depreciation (id.). Therefore, the Attorney General argues that the Department should disallow the Company's test year meter removal expense and order the Company to capitalize those costs in the future (Attorney General Brief at 38).

b. Fitchburg

Fitchburg argues that its meter removal accounting practices are in compliance with the Department's Uniform System of Accounts (Fitchburg Brief at 93). The Company states that its longstanding practice has been to charge the removal of electric meters to Account 586 - Meter Expenses (Fitchburg Reply Brief at 12). The Company argues that, although the initial installation of an electric meter must be appropriately capitalized under Account 370 - Meters, any actions that remove or reinstall that same meter are appropriately expensed to

Account 586. Fitchburg argues that this practice is consistent with the accounting treatment associated with certain other plant, including line transformers, voltage regulators, and capacitors (id.).

The Company asserts that the Attorney General's argument for capitalizing meter removal costs is inconsistent with the operating expense instructions of the Uniform System of Accounts, which state that maintenance expenses shall include "rearranging and changing the location of plant not retired." Fitchburg further argues that the Attorney General's argument is inconsistent with the expense account instructions for Account 586, which direct companies to book costs to this account when "[c]hanging or relocating meters, checking operation of demand meters and other metering equipment, when done as an independent operation" (id. at 12, n.1). With respect to the accounting treatment accorded to gas meters, the Company contends that the Attorney General has confused the specific instructions found in Account 381 - Gas Meters, with the general instructions for depreciable plant found in Account 254 - Reserve for Depreciation of Utility Plant in Service (Fitchburg Brief at 94).

3. Analysis and Findings

In the case of gas companies, Account 254 specifies that when a property item is retired, this account shall be credited with both the book cost of the plant item and the cost of removal. Conversely, Account 381 specifies that the cost of removing and resetting meters shall be booked to Account 878 - Meter and House Regulator Expense. Reading these accounts together, removal costs associated with a meter should be capitalized when the meter is being retired, with any interim removals, such as for testing, maintenance, and the

seven-year change-out requirement of G.L. c. 164, § 115A, booked as an expense to Account 878.

Allowing for the use of different account numbers, the accounting treatment for electric meters is identical to that for gas meters. Account 108 - Accumulated Provision for Depreciation of Electric Utility Plant, also specifies that when a property item is retired, this account shall be credited with both the book cost of the plant item and the cost of removal. Conversely, Account 370 specifies that the cost of removing and resetting meters shall be booked to Account 586 - Meter Expenses. As in the case of gas utilities, reading these accounts together, removal costs associated with a meter should be capitalized when the meter is being retired, with any interim removals, such as for testing and maintenance, booked as an expense to Account 586.

For Fitchburg, the average cost to remove a residential customer's gas meter is $19.90, which covers the cost of the service person, materials, and transportation (Exh. DTE 5-6). Fitchburg's average cost of removing an electric meter is approximately $15.00 (RR-AG-11). The Company's depreciation study shows that Fitchburg has been booking all removal costs associated with gas meters to expense categories, even when the meters were removed for retirement (Exh. FGE JHA-1 (gas), Sch. 1, at 113; Tr. 2, at 188). All costs of removing electric meters have also been booked as expenses (Exh. FGE JHA-1 (electric), Sch. 1, at 38). The Attorney General suggests that, because of Fitchburg's incorrect accounting practice, the Company's entire test year meter removal expense should be disallowed. The Department finds that removing the entire expense is not warranted in this case, because the record

demonstrates that not all meter removals were for the purpose of retirements (RR-AG-11). During the test year, the Company retired 26 gas meters and 403 electric meters (Fitchburg 2001 Annual Return to the Department at 78 (gas); Fitchburg 2001 Annual Return to the Department at 429 (electric)). Therefore, $517 in test year gas meter removal costs (26 meters times $19.90 per meter) and $6,045 in electric meter removal costs (403 meters times $15 per meter) should be capitalized, consistent with proper meter removal accounting practices. Accordingly, the Department will reduce the Company's proposed gas cost of service by $517 and the proposed electric cost of service by $6,045. A corresponding decrease to the Company's accumulated depreciation of $517 for its gas division and $6,045 for its electric division is necessary. Going forward, Fitchburg and all other gas and electric utilities are directed to capitalize removal costs associated with meters that are actually retired. This will require all companies to track their meter removal costs and charge those removal costs associated with meter retirements to the depreciation reserve.

J. Property and Liability Insurance

1. Introduction

Fitchburg carries property and liability insurance for its gas and electric divisions, and for its affiliated businesses (Exhs. FGE MHC-1, at 46 (gas); FGE MHC-1, at 49 (electric)). Property and liability insurance includes a number of types of insurance, such as all risk, crime, transit, workers compensation, directors and officers ("D&O"), and fiduciary, which provide protection from casualty and loss, and other damages that Fitchburg may incur in the

conduct of its business (Exhs. FGE MHC-1, at 46 (gas); FGE MHC-1, at 49, Sch. MHC-7-7 (electric)).

During the test year, Fitchburg booked $129,753 in property and liability insurance expense for its gas division (Exh. FGE MHC-1 (gas), Sch. MHC-7-9)). The Company proposes to increase its gas division property and liability insurance expense to $152,572, of which $31,992 would be charged to capital, leaving $129,753 booked to O&M expense, for a decrease to test year cost of service of $9,172 (Exh. FGE Update (gas), Att. 2, at 21). During the test year, Fitchburg booked $116,660 in property and liability insurance expense for its electric division (Exh. FGE MHC-1 (electric), Sch. MHC-7-7)). The Company proposes to increase its gas division property and liability insurance expense to $290,494, of which $62,773 would be charged to capital, leaving $227,721 booked to O&M expense, for an increase to test year cost of service of $111,051 (Exh. FGE Update (electric), Att. 1, at 18).

2. Positions of the Parties

a. Attorney General

The Attorney General argues that the Company failed to explain why it should be allowed to recover its electric division property and liability insurance expenses (Attorney General Brief at 27). Regarding the Company's post-test year insurance expenses, the Attorney General states that the issue is not whether the Company's pro forma increase is known and measurable, but rather whether Fitchburg took reasonable and adequate steps to control its insurance costs (Attorney General Reply Brief at 13). The Attorney General argues

that the Company improperly included its efforts to contain D&O insurance as support for the Company's argument that it contained property and liability insurance costs (id.).

The Attorney General argues that Fitchburg failed to contain the its insurance costs because the Company did not to seek competitive bids when choosing its insurance carrier for the test year. Therefore, the Attorney General argues that the Department should reject the Company's pro forma increase to test year electric division property and liability insurance (Attorney General Brief at 27-28, 34; Attorney General Reply Brief at 13-14). Finally, the Attorney General contends that the Department should reject a $15,000 broker fee used by the Company in negotiating its D&O liability insurance (Attorney General Reply Brief at 14). The Attorney General argues that the broker's fee does not meet the Department's "reasonable and valuable" standard (id. at 14, citing D.T.E. 01-56, at 67).

b. Fitchburg

Fitchburg argues that its pro forma increase for post-test year electric division property and liability expenses is known and measurable (Fitchburg Brief at 66, 68, citing Exhs. FGE MHC-1 (electric), Sch. MHC-7-7; AG 7-35). The Company attributes the general increases in insurance premiums to an overall "hardening of the market" which has had an effect on the insurance industry as a whole (Fitchburg Brief at 68, citing Tr. 11, at 1385-1386; Fitchburg Reply Brief at 17). In response to the Attorney General's argument that Fitchburg failed to negotiate lower insurance premiums, the Company contends that it bids or benchmarks its insurance premiums at least once every five years and the fact that the test year was not a benchmark year is immaterial to whether the expense amount is just and reasonable (Fitchburg

Brief at 68, citing Tr. 11, at 1387; Fitchburg Reply Brief at 17). The Company further asserts that competitively bidding insurance policies every year is expensive and could adversely affect the relationships and benefits that the Company currently enjoys with its insurance carriers (Fitchburg Brief at 68).

Finally, Fitchburg argues that it uses the services of a broker who continually monitors the market and seeks cost-containment opportunities (Fitchburg Brief at 69, citing Tr. 11, at 1388). Fitchburg claims that by paying an annual broker's fee of $15,000 for D&O liability coverage, it has received $123,426 in continuity credits for D&O insurance (Fitchburg Brief at 69, citing Exhs. AG 7-35 (gas), Atts. 12, 13; AG 7-35 (electric), Atts. 12, 13).

3. Analysis and Findings

Rates are designed to recover a representative level of a company's revenues and expenses based on an historic test year adjusted for known and measurable changes. D.P.U. 92-250, at 106. The Attorney General does not challenge whether the Company's electric pro forma property and liability insurance adjustment is known and measurable, but the Attorney General does contest the reasonableness of the Company's electric pro forma insurance adjustment. The evidence demonstrates that the Company periodically bids or benchmarks all of its insurance policies (Tr. 11, at 1387-1388). The evidence further shows annual competitive bidding for new insurance carrier is costly and may harm relations with the Company's current insurance carriers (id. at 1386-1387). In addition, the Company receives benefits from retaining its relationships with its liability insurance carriers in the form of continuity credits (Exh. AG 7-35, at 12; Tr. 11, at 1378-1379). When the competitive bidding

process is not used, the Company employs the services of a broker to find more competitive insurance rates (Tr. 11, at 1387-1388).

The Attorney General also contests the Company's annual consulting fees of $15,000 for D&O coverage. As noted above, when a competitive bidding process is not used, the Company employs the services of a broker to compare rates (id. at 1387-1388). The Attorney General argues that the broker's fee does not meet the Department's standard that such a fee be "reasonable and valuable." The evidence indicates, however, that Fitchburg's ratepayers receive a benefit in the form of continuity credits (Exh. AG 7-35, at 12). Thus, the Department finds that the broker fee provides a reasonable and valuable benefit to Fitchburg's customers. D.P.U. 92-210, at 51-52. Based on the above, the Department finds that Fitchburg has taken reasonable measures to control its property and liability insurance expenses. Therefore, the Department approves the Company's pro forma property and liability adjustments for its gas and electric divisions.

K. Uncollectible Expense

1. Introduction

The Department permits a representative level of uncollectible (i.e., bad debt) expense to be included in rates. During the test year, Fitchburg booked $652,015 and $615,218 to uncollectible expense for its gas and electric divisions, respectively (Exhs. FGE MHC-1 (gas), Sch. MHC-7-10, at 113; FGE MHC-1 (electric), Sch. MHC-7-8, at 109). For both the gas and electric divisions, Fitchburg proposes to calculate the total amount of bad debt to be included in rates by dividing the 1999 through 2001 three-year average net write-offs as a

percent of total retail revenues for the corresponding period and multiplying the resulting percentage by normalized test-year revenues (Exhs. FGE MHC-1, at 47-48 (gas); FGE MHC-1, at 51 (electric)).

The proposed method resulted in a total uncollectible expense of $518,429 and $440,484 for its gas and electric divisions, respectively (Exhs. FGE MHC-1 (gas), Sch. MHC-7-10; FGE MHC-1 (electric), Sch. MHC-7-8). Accordingly, the Company proposes a decrease of $133,586 and $342,823 to test year bad debt expense for its gas and electric divisions, respectively (Exhs. FGE MHC-1 (gas), Sch. MHC-7-10; FGE MHC-1 (electric), Sch. MHC-7-8). At issue in this proceeding is whether the level of write-offs that the Company booked to the last month of the test year (December 2001) for both its gas and electric divisions are overstated.

Currently, electric distribution companies recover all of their allowed bad debt expense through base rates, whereas gas distribution companies recover their allowed bad debt expense through base rates and through the gas adjustment factor ("GAF"). In this proceeding, Fitchburg proposes two changes to its collection of bad debt. First, it proposes to treat the recovery of its electric division bad debt in the same manner it treats the recovery of its gas division bad debt. As such, Fitchburg proposes to allocate and recover that portion of bad debt attributable to the generation components of standard offer service and default service through the charges for those services (Exh. FGE MHC-1, at 51 (electric)). Although this is consistent with how uncollectible expense is treated for gas companies, it is the first time such treatment has been proposed for an electric distribution company.

Second, Fitchburg proposes to change the method of allocating a portion of its bad debt to the GAF (and to apply this method to its electric division bad debt) (Exhs. FGE MHC-1, at 48 (gas); FGE MHC-1, at 52 (electric)). During a base rate proceeding, gas distribution companies allocate a portion of their bad debt expense to the GAF based on the ratio of test year gas production revenues to the total revenue requirement. See D.T.E. 01-56, at 96; D.P.U. 93-60, at 412-413. This ratio remains fixed between base rate cases. Each year, gas distribution companies determine the amount of bad debt they are allowed to collect through the GAF by multiplying the ratio of gas production revenues to the total revenue requirement determined in their last rate case, by their total bad debt expense for the previous year.

Fitchburg's proposed method of bad debt allocation uses the ratio of the actual level of customer account writeoffs tracked for gas supply, standard offer service, or default service during the test year to the total level of writeoffs for each service-respective division (Exhs. FGE MHC-1, at 48 (gas); FGE MHC-1, at 52 (electric)).[64] Based on this method, the Company proposes to allocate 58.82 percent of the gas division total uncollectible expense to the GAF, and 38.16 percent of the electric division total uncollectible expense to standard offer service and default service (Exhs. DTE 1-22 (rev.) (gas); FGE MHC-2E at 156 (electric)).

The Company proposes to recalculate the portion of bad debt to be recovered through the GAF, standard offer service, or default service based on the ratio described above, but calculated using the previous year's data and based on Fitchburg's actual bad debt expense

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[64] The Company's new billing system allows it to track the bad debt accounts by specific billing components (Exhs. FGE MHC-1, at 48 (gas); FGE MHC-1, at 52 (electric)) .

over the previous year (Exhs. FGE MHC-1, at 48-49 (gas); FGE MHC-1, at 52 (electric)). This proposed recalculation would take place annually in the GAF filing for the gas division and in the reconciliation filing for the electric division.

2. Positions of the Parties

a. Attorney General

With respect to the Company's specific calculation of the gas and electric divisions' bad debt expense, the Attorney General argues that the Company's proposed test year uncollectible expense figures are inflated and, therefore, overstate the Company's actual uncollectible expense (Attorney General Brief at 21). The Attorney General notes that the Company recorded 40 percent of its gross gas write-offs and more than one-third of its gross electric write-offs in the last month of the test year (id. at 22, citing Tr. 15, at 1914, 1916). The Attorney General argues that this recording irregularity artificially inflates the uncollectible expense because it does not take into account recoveries that might take place in the subsequent months. To correct this overstatement, the Attorney General argues that the Department should require the Company, for both its gas and electric divisions, to exclude the extraordinary December write-offs and instead direct the Company to use the average gross write-offs per month for January through November in the test year in its bad debt expense calculations (Attorney General Brief at 23; Attorney General Reply Brief at 15).

The Attorney General opposes the Company's proposal to change the method of allocating bad debt costs. The Attorney General argues that the allocation method proposed by the Company for the gas and electric divisions would make the GAF and reconciliation filings

more complex and would provide the Company with guaranteed recovery of costs that are substantially within the Company's control. Further, the Attorney General argues that the Company would have an incentive to allocate more payments and recoveries to the GAF component (where the recovery of bad debt would be, under the Company's proposal, recovered dollar for dollar) and less to the distribution component (where the recovery of bad debt would remain fixed) (Attorney General Brief at 77). Consequently, should the Department accept the Company's allocation method, the Attorney General asserts that the Company must have in place a specific allocation method in order to allocate appropriately partial payments and recoveries for both the gas and electric divisions (id. at 78).

b. DOER

DOER supports the Company's proposal to remove the generation-related portion of bad debt costs from the proposed cost of service and instead to collect these costs through the standard offer service and default service charges. DOER recommends that the Department require the Company to remove all generation- and transmission-related costs from the proposed cost of service and mandate that these costs be allocated to the responsible service, and collected in the appropriate component of the bill (DOER Brief at 5).

c. Fitchburg

Regarding its specific calculation of gas and electric bad debt expenses, the Company argues that it has supported the test year-end level of write-offs including the reasons for the high level of write-offs and the steps it has taken to reduce the level of write-offs during the test year (Fitchburg Brief at 73). According to the Company, it began to notice a increase in

over-90 day accounts in the second quarter of 2001 as a result of high energy costs and the winter moratorium on shut-offs (id., citing Tr. 13, at 1572; Exh. DTE 1-20 (gas)). The Company maintains that it undertook measures to reduce bad debt expense, including the use of an increased number of collection agencies, the revision of internal control procedures to insure that customers on payment plans keep current on their accounts, the enhancement of internal programs to expedite the review of delinquent accounts, and enhanced interaction with fuel assistance agencies and customers (Fitchburg Brief at 73, citing Exh. DTE 1-21 (gas)). The Company asserts that in spite of these efforts it still maintained a high level of writeoffs and, therefore, needed to take an additional write-off at the end of the test year (Fitchburg Brief at 74; Fitchburg Reply Brief at 18).

The Company argues that its proposal to allocate bad debt between distribution and generation is consistent with the Department's longstanding policy of matching price with the cost of service rendered to customers. The Company claims that, under its proposed method of bad debt allocation, the Company will more accurately recover the actual cost of providing standard offer service, default service, and gas production costs (Fitchburg Brief at 72). Further, the Company argues that the Attorney General's concern that the Company will have an incentive to manipulate the calculation of its bad debt expense by recovering a larger portion of bad debt through the GAF is baseless and unsupported by any evidence (id. at 74).

3. Analysis and Findings

a. Introduction

With respect to the specific calculation of bad debt expense, the Department must address whether the level of write-offs that the Company booked to the last month of the test year (December 2001) for both its gas and electric divisions are overstated. In addition, the Department must address the following two issues with respect to the allocation of the bad debt expense: (1) whether electric generation-related bad debt should be removed from base rates and instead be collected through the standard offer service and default service charges; and (2) whether to accept the Company's revised method for allocating bad debt each year between base rates and gas production- or electric generation-related rates, including the reconciliation of such expenses each year.

b. Calculation of Bad Debt - Gas and Electric

The Department permits companies to include for ratemaking purposes a representative level of uncollectible revenues as an expense in its cost of service. D.T.E. 98-51, at 49; D.P.U. 96-50 (Phase I) at 70. To determine the amount of uncollectibles, a company performs a calculation that includes determining the average of the most recent consecutive three years' net writeoffs, as a percentage of the total retail revenues for the corresponding period (i.e., the "uncollectible ratio"). Id. The Department finds that the Company has applied correctly the uncollectible ratio for both its gas and electric divisions by using the net writeoff and firm revenue figures from 1999 through the test year, 2001.

We now address the question of whether the net writeoffs charged to the test year are overstated and, therefore, unrepresentative. The Company charged 43 percent of test year gas writeoffs and 30 percent of test year electric writeoffs in the last month of the test year. Fitchburg argues that its writeoffs were high at the end of the test year because of high energy costs and the Department sanctioned winter moratorium on shut-offs (Exh. DTE 1-20 (gas); Tr. 13, at 1572).

Energy prices were high during the test year. However, these high energy prices do not justify the extraordinary level of writeoffs the Company booked in December of the test year. Fitchburg's test year writeoffs are significantly higher than the writeoff amounts for each of the prior two years for both the gas and electric divisions.[65] Further, the fact that the Company undertook many measures to reduce the level of bad debt during the test year is not relevant to the level of bad debt that Fitchburg charged to the last month of the test year. With respect to the moratorium on shut-offs, the Department acknowledges that the moratorium may have caused some increase to the level of writeoffs. However, the moratorium was an extraordinary event that did not occur in the prior two years and will not likely occur in future years. The Department does not include the effects of extraordinary events because doing so would not provide a representative level of uncollectible expense. See D.P.U. 92-101,

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[65] In 1999 and 2000 the Company booked $309,621 and $402,388 to its gas division writeoffs, respectively (Exh. FGE Update (gas), Att. 2, at 21). Also, in 1999 and 2000 the Company booked $273,216 and $291,535 to its electric division writeoffs, respectively (Exh. FGE Update (electric), Att. 1, at 19).

at 54-55. Accordingly, the Department finds that the extraordinary level of writeoffs in the last month of the test year does not provide a representative level of uncollectible expense.

To determine a representative level of uncollectible expense for the gas and electric divisions, the Department will annualize the writeoffs charged in January through November of the test year. Annualizing the writeoffs booked in January through November of the test year reduces the test year level of writeoffs from $654,984 to $445,642 for the gas division and from $602,215 to $316,590 for the electric division.

c. Electric Generation-Related Bad Debt

The Department has acknowledged that distribution companies incur default service-related costs (e.g., bad debt costs) that are recovered from all customers through the companies' base rates. Further, we have stated that, in principle, all costs of providing default service should be included in the rates paid by default service customers so as not to act as a barrier to competition. D.T.E. 99-60-B at 19. To date, these costs have not been included in default service rates because of concerns of administrative inefficiency. However, in a separate ongoing investigation of default service, the Department stated that we would reevaluate the price components to be included in default service rates, including bad debt costs. Procurement of Default Service, D.T.E. 02-40, at 5-6 (2002). Specifically, the Department is investigating whether any generation-related costs that are now recovered through the distribution rates, including bad debt, should be recovered through default service rates. In the current proceeding, consistent with our treatment of production-related bad debt for gas companies, the Department will permit Fitchburg to remove generation-related bad

debt from the distribution rates and instead collect these amounts in standard offer service and default service rates. With respect to DOER's broader proposal to require the Company to remove all generation- and transmission-related costs from the proposed cost of service and instead collect these costs in gas production or electric generation rates, the Department will reserve consideration of this issue for D.T.E. 02-40.

d. Allocation of Bad Debt - Gas and Electric

In considering the Company's proposed method of allocating bad debt between base rates and gas production- or electric generation-related rates, we look to the policy objective underlying the Department's original decision to allow gas distribution companies to allocate a portion of bad debt to the GAF. The first time such recovery was permitted was in D.P.U. 96-50 (Phase I) at 72-73. There, the Department determined that a new method of allocating bad debt expense was required because customers migrating to transportation service would likely cause gas revenues, and thus bad debt expense, to decrease. The Department ordered Boston Gas Company to apportion its bad debt expense between base rates and the GAF. Id.

The policy underlying the method approved in D.P.U. 96-50 (Phase I) was to account for the effect of customer migration. As customers migrated to competitive supply, the Department expected that production-related bad debt would decrease because the supplier of a customer that migrated to transportation would be responsible for such customer's production-related bad debt. Id. at 72. The intent was not to allow recovery of bad debt expense greater than the level determined to be reasonable in a rate case. Thus, our policy of

allowing gas companies to collect a portion of bad debt through the GAF was not intended to allow the gas companies dollar-for-dollar recovery of production-related bad debt expenses. Fitchburg's proposal of allowing dollar for dollar recovery removes the incentive for the Company to reduce its bad debt expense. Therefore, the Department rejects Fitchburg's proposed method of bad debt allocation.

Rather than continuing to use the method of gas bad debt allocation approved in D.P.U. 96-50 (Phase I) (and apply this method to electric bad debt), we have determined that a revised method of allocating bad debt expense is necessary to more properly account for customer migration. Our revised method is a refinement of the method proposed by Fitchburg in this case. Under this revised method, the Department will determine semi-annually, in the GAF proceedings for Fitchburg's gas division, and annually, in the reconciliation proceedings for Fitchburg's electric division, an allocation factor, in the manner proposed by the Company. However, instead of recalculating the portion of bad debt to be recovered through the GAF, standard offer service, or default service each year using the previous year's actual bad debt expense, the Department directs the Company to apply each year's allocation factor to the level of bad debt expense approved in this rate case. By using this method, the Company shall not recover more than the level of bad debt expense approved in this case. We adopt this method because it preserves a company's incentive to reduce bad debt expense, while appropriately accounting for any migration to the competitive market.[66]

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[66] Regarding the Attorney General's concern that the Company has an incentive to allocate more payments and recoveries to the GAF or generation and less to the distribution

(continued...)

e. Uncollectible Adjustment - Gas and Electric

Based on our findings above, the Company shall calculate its bad debt expense for its gas division using $386,543 for the test year level of net writeoffs and an uncollectible ratio of 1.98 percent. Also, the Company shall calculate its bad debt expense for its electric division using $484,968 for the test year level of net writeoffs and an uncollectible ratio of 0.63 percent. Accounting for each of the adjustments discussed above, the Department will change the Company's gas division uncollectible expense by increasing the distribution-related uncollectible expense by $46,812, and decreasing the production-related uncollectible expense by $78,051. The Company is permitted to recover for its gas division $190,296 in bad debt expense through distribution rates. Accounting for each of the adjustments discussed above, the Department will decrease the Company's electric test year uncollectible expense by $350,507. The Company will be permitted to recover for its electric division $264,711 in bad debt expense through distribution rates.

L. Other Power Supply Expense

1. Introduction

The Company booked in the test year for its electric division $32,412 of "other power supply expenses" associated with Account 555 - Purchased Power, that are not currently recovered through any of Fitchburg's generation-related rates (Exhs. FGE MHC-1 (electric),

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[66](...continued)
component, the Department addressed a similar concern with respect to partial payments to competitive suppliers in Investigation Into Advanced Metering, D.T.E. 01-28 (Phase II) at 15 (2001). Fitchburg is directed to allocate partial payments between generation and distribution service in a like manner.

Sch. MHC-7-2, at 97; DTE 2-19 (electric); DTE 7-30 (electric)). In its initial filing, the Company proposed to remove these other power supply expenses from the distribution cost of service because they "were inadvertently, and incorrectly, charged to the [e]lectric [d]ivision's distribution operations" (Exh. FGE MHC-1, at 38-39 (electric)). The Company stated that this amount represents the result of several accounting adjustments that occurred during the test year (Exh. DTE-2-19).[67]

Fitchburg later requested that these other power supply expenses be reinstated in the distribution cost of service of its electric division because these expenses are not recovered in any of the Company's other components of unbundled rates (Fitchburg Brief at 48, citing Fitchburg Gas and Electric Light Company, D.T.E. 99-110 (Phase II) at 27 (2001); Exh. DTE 2-19; RR-DTE-6 (rev.), Sch. MHC-7-19 (electric)). The Company claims that, in, D.T.E. 99-110 (Phase II), it was not allowed to recover in the standard offer service and default service charges any of these other power supply expenses, and instead it was allowed to

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[67] The Company stated that these accounting adjustments correct for invoices initially booked as transition costs instead of default service costs, and adjust the recoverable default service accounts for prior years (Exh. DTE-2-19). In addition, the Company claimed that in October 2001, the Department "issued an Order materially changing the accounting for these expenses as recoverable in the default service mechanism. The Order disallowed recovery through default service and the Company reclassified the amounts to base expense" (id.). The Company, however, added that

> [t]hese amounts were reclassified from recoverable FERC 555 accounts to norecoverable FERC 555 accounts. Because they pertained to purchased power expenses, the Company decided to remove them from distribution function cost of service for purposes of the electric base rate case.

(Exh. DTE 2-19).

only recover very specific costs that were primarily related to the supply of standard offer service and default service (Tr. 15, at 1823, citing, D.T.E. 99-110). The Company argues that, because these other power supply expenses represent continuing obligations that warrant recovery in some mechanism, "the mechanism left to recover [these expenses] is the distribution charge" (id. at 1823-1824). No other party commented on this issue.

2. Analysis and Findings

The other power supply expenses Fitchburg requests recovery of in base distribution rates consist primarily of expenses billed to the Company by the Independent System Operator New England, Inc. (Exh. DTE 2-19, Att. 1, at 17). Fitchburg booked these other power supply costs to Account 555 (Exh. DTE 2-19). The Company acknowledges that the other power supply expenses sought in the instant docket are expenses related to purchased power (id.). As such, these other power supply expenses cannot be recovered in distribution rates.

The Department disagrees with the Company's contention that these types of expenses have been denied recovery in D.T.E. 99-110 and, therefore, that the Company has no alternative means of recovering these costs (Exh. DTE 2-19; Tr. 15, 1822-1823). In D.T.E. 99-110 (Phase II) at 26-27, the Department denied the recovery of generation portfolio management costs above the level established in Fitchburg's prior rate case.[68] The generation portfolio management costs addressed in D.T.E. 99-110 (Phase II), at 20, 26-27, were the

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[68] In D.T.E. 99-110 (Phase II), the Department stated: "we direct the Company to include in the costs of providing [standard offer service] only those generation portfolio management costs that were allowed in the rates that were approved by the Department in D.P.U. 84-145-A for the period March 1, 1998 through the divestiture date." D.T.E. 99-110 (Phase II) at 27.

costs of meeting the Company's standard offer service obligations from its pre-restructuring generation portfolio. These were costs that prior to electric industry restructuring were recovered through base rates, and after electric industry restructuring were no longer eligible for recovery through base rates, but instead were recovered through standard offer service rates (up to the level approved in the Company's last rate case). The costs that the Company seeks recovery of in this proceeding are clearly not related to the service obligations from the Company's pre-restructuring generation portfolio. To the extent the Company can demonstrate that these other power supply expenses are eligible for recovery elsewhere (e.g., standard offer service, default service, or transmission service), the Department will consider recovery of these costs in Fitchburg's next reconciliation proceeding. Accordingly, the Department does not accept the Company's request to include $32,412 in other power supply expenses in base rates.

M. Unitil Service Charges

1. Introduction

Unitil Service is a wholly-owned subsidiary of Unitil providing a variety of shared utility services on an "at cost" basis to its three utility operating companies, Fitchburg and its two New Hampshire utility companies, Concord Electric Company, and Exeter & Hampton Electric Company (Exh. FGE MHC-1, at 10 (gas)). Unitil Service provides services in the following six major functional areas: (1) corporate and administration; (2) customer services;

(3) energy services; (4) engineering and operations; (5) regulatory, finance, and accounting; and (6) technology (id.). A portion of Unitil Service's expenses are allocated to Fitchburg and are categorized as either labor or overhead (id. at 51).

During the test year, Unitil Service incurred expenses, net of capitalization, of $15,362,876 (Exh. FGE MHC-5, at 269 (electric)). Fitchburg was allocated $6,099,713 of Unitil Service's total expenses. Of this amount, $2,255,575 was allocated to the Company's gas division and $3,844,138 was allocated to the Company's electric division (id. at 270). As a component of Unitil's overhead category, the Company classified $1,672,003 of the Unitil Service expenses as a "benefits expense" (Exh. FGE MHC-5, at 269 (electric)). Included in the benefits expense amount is $125,569 for FAS 87 pension expense (Exh. DTE 6-7, at 2 (common)).

As part of its total expense, Unitil Service incurred interest expense of $344,945 (Exhs. FGE MHC-5, at 269 (gas); FGE MHC-5, at 269 (electric)). Unitil Service bills this interest expense to the subsidiaries of Unitil, including Fitchburg (Tr. 14, at 1729). Interest expenses are allocated to Fitchburg as either a direct charge or an allocation, and are characterized as outside services (id.). During the test year, the Company was allocated 39.97 percent of Unitil Service's interest charges, for a total of $108,368 (Exhs. FGE MHC-5, at 269-270 (gas); FGE MHC-5, at 269-270 (electric)). Fitchburg allocated $37,101 in interest costs to its gas division and $71,186 in interest costs to its electric division (id.).[69]

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[69] Unitil Service capitalized 21.46 percent of its common expenses allocated to Fitchburg, or $29,588 (Exhs. FGE MHC-5, at 270 (gas); FGE MHC-5, at 270 (electric)).

The Company proposes to remove $11,475 of Unitil Service expenses from its gas division cost of service, and $22,749 of Unitil Service expenses from its electric division cost of service (Exhs. FGE Update (gas), Att. 2, at 24; FGE Update (electric), Att. 1, at 23). The Company explained that it was concerned that the Department would not allow such expenses because they were for items, such as donations, membership fees, market development costs, and advertising that do not meet the Department's precedent for rate recovery (Exhs. FGE MHC-1, at 59 (electric); FGE MHC-1, at 54 (gas); FGE MHC-1 (electric), Sch. MHC-7-11, at 116; FGE MHC-1 (gas), Sch. MHC-7-12, at 117; Tr. 14, at 1722-1723).

2. Positions of the Parties

a. Attorney General

The Attorney General argues that the Company has failed to book interest expenses charged by Unitil Service to the appropriate non-operating accounts under the Department's Uniform System of Accounts (Attorney General Brief at 19). The Attorney General maintains that, because Fitchburg has booked Unitil Service interest charges to an operating account, Account 923 – Outside Service Employed, the Company has inappropriately included this expense in its proposed cost of service (id. at 20). The Attorney General contends that, because utilities are not permitted to include interest expense as a line item in cost of service, the same treatment should be accorded to Fitchburg's interest charges from Unitil Service (id.).

Moreover, the Attorney General contends that the legitimacy of Unitil Service's interest charges to Fitchburg is questionable in light of Unitil Service's increase in short-term debt

during the test year from $991,000 to $6,348,000, despite a decrease in Unitil's short-term debt balances over the same period (Attorney General Reply Brief at 27, citing Exh. AG 1-7 (2), at 6, 12). The Attorney General argues that, because the Department has neither reviewed nor approved the issuance of Unitil's debt resulting in the interest charges, it is impossible to determine the extent to which the proceeds were used for utility purposes (Attorney General Brief at 20; Attorney General Reply Brief at 27). The Attorney General maintains that the "apparent ease" with which Unitil makes intra-corporate assignments of debt among its affiliates calls their reasonableness into question (Attorney General Brief at 27). Therefore, the Attorney General proposes that the Company's test year interest charges from Unitil Service be excluded from the cost of service (Attorney General Brief at 21; Attorney General Reply Brief at 28).

b. Fitchburg

According to the Company, Unitil Service incurs interest expense in order to serve Fitchburg and its customers (Fitchburg Brief at 78). This interest expense includes interest associated with leases and interest incurred on short-term debt to meet Unitil Service's working capital requirements (Tr. 1, at 79). The Company argues that, because Unitil Service is not a regulated utility, it cannot recover its interest costs through a return on rate base, i.e., through a working capital allowance (Fitchburg Brief at 78; Fitchburg Reply Brief at 18). Fitchburg maintains that Unitil Service's only means of recovering this cost is to include the cost as interest expense in its billings to the Company (Fitchburg Brief at 78; Fitchburg Reply Brief at 18). The Company maintains that an allocated portion of Unitil Service's interest expense

must be included in the cost of service, because Department precedent recognizes that a company is entitled to recover the costs associated with the uses of its own funds and for the interest it incurs for borrowing (Fitchburg Brief at 77-78, citing D.P.U. 87-260, at 22-23). Fitchburg contends that if the Attorney General's position is accepted, the Company would be prevented from recovering costs legitimately incurred in the provision of service to Fitchburg's ratepayers (Fitchburg Brief at 78-79).

3. Analysis and Findings

In order to qualify for inclusion in rates, any payments by a utility to an affiliate must be (1) for activities that specifically benefit the regulated utility and do not duplicate services already provided by the utility, (2) made at a competitive and reasonable price, and (3) allocated to the utility by a formula that is both cost-effective and nondiscriminatory within both those services specifically rendered to the utility by the affiliate and for general services which may be allocated by the affiliate to all operating affiliates. Hingham Water Company, D.P.U. 88-170, at 21-22 (1989); D.P.U. 85-137, at 51-52.

The comprehensive Unitil Service pension plan covering each of its subsidiaries, including Fitchburg, was in an overfunded position during the test year (Tr. 14, at 1723). Accordingly, no payments to the pension plan were required (id. at 1724). The Department allows pension costs to be included in the cost of service to the extent that tax deductible contributions are made to a qualified pension plan. D.P.U. 87-260, at 39-47. The $125,569 pension expense recorded by Unitil Service during the test year represents an accounting expense and thus does not require a cash contribution to the pension plan (Tr. 14, at 1723).

Therefore, the Department will reduce Fitchburg's cost of service by the allocated portion of the FAS 87 pension expense of $13,506 for the gas division and $25,913 for the electric division.[70]

Turning to the issue of Unitil Service's interest charges billed to Fitchburg, Unitil Service is not a regulated utility, but a third-party vendor of services at cost to Unitil's affiliates, including Fitchburg, whose transactions with the Company are subject to Department supervision (Exhs. AG 1-26; AG 5-13 (electric); AG 7-16 (gas)). G.L. c. 164, §§ 76A, 85; see also 15 U.S.C. § 79m(b). Unitil does not have a rate base or working capital allowance calculated in the manner of utilities under the jurisdiction of the Department. Based on the evidence presented to the Department, we are unable to determine the extent to which Unitil Service's interest charges allocated to the Company were incurred for utility purposes (Exh. AG 7-66 (electric); Tr. 1, at 79-82). Even if the Department were to find that this interest expense was incurred for Fitchburg's own operations, the level of the interest expense in itself is unsupported (Exh. AG 7-66 (electric); Tr. 1, at 80-82). The need for proper substantiation of this expense is particularly relevant in this case, in light of the increase in

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[70] These numbers were derived by taking Unitil's total FAS 87 pension expense of $125,569 and allocating 39.97 percent, or $50,190, to Fitchburg. The allocated FAS 87 pension expense was then allocated 35.92 percent, or $18,028 to gas and 64.08 percent, or $32,162 to electric. Using a capitalization ratio of 21.46 percent (common expense capitalization divided by total common capitalization) a capitalization amount of $10,771 was derived (Exh. FGE MHC-5, at 270 (electric)). This capitalization amount was then allocated on the basis of 41.99 percent, or $4,522, to gas, and 58.01 percent, or $6,249, to electric. Subtracting the capitalization amount from the allocated FAS 87 pension expense produces an adjustment to pension expense of $13,506 for the gas division and $25,913 for the electric division.

Unitil Service's short-term debt during the test year from $991,000 to $6,348,000, contrasted with the decrease in Unitil's own short-term debt balance from $32,500,000 to $13,800,000 during the same period (Exh. AG 1-7 (2) at 6, 12). The Department finds that Fitchburg has failed to meet its burden to show that the Unitil Service interest expense is for activities that specifically benefit the regulated utility, as well as its burden to demonstrate the reasonableness of this expense. Therefore, the Company's proposed cost of service for its gas division will be reduced by $37,101, and Fitchburg's proposed cost of service for the electric division will be reduced by $71,186.

N. Inflation Allowance

1. Introduction

Fitchburg proposes inflation adjustment increases of $92,839 and $165,213 to its test year cost of service for the Company's gas and electric divisions, respectively (Exhs. FGE MHC-1, at 58 (gas); FGE MHC-1, at 60 (electric); FGE Update (gas), Att. 2, at 28; FGE Update (electric), Att. 1, at 24).[71] Fitchburg used the gross domestic product implicit deflator ("GDPID") as derived by the United States Department of Commerce, Bureau of Economic Analysis and the Energy Information Administration/Short-Term Energy Outlook to calculate the inflation allowance for its gas and electric divisions (Exhs. FGE-MHC-1, at 59 (gas); FGE MHC-1 (gas), Sch. MHC-7-15, at 2; FGE MHC-1, at 61 (gas); FGE MHC-1 (electric),

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[71] The Company initially reported inflation allowances of $71,663 and $127,221 for its gas and electric divisions, respectively (Exhs. FGE MHC-1 (gas), Sch. MHC-7-15, at 124; FGE MHC-1 (electric), Sch. MHC-7-12, at 118).

Sch. MHC-7-12, at 2). Fitchburg calculated a revised inflation factor as of October 20, 2002, of 3.30 percent[72] for the period between the midpoint of the test year (July 2001) and the midpoint of the rate year (June 2003) (Exhs. FGE MHC-1 (gas), Sch. MHC-7-15, at 2; FGE MHC-1 (electric), Sch. MHC-7-12, at 2). Fitchburg calculated the inflation adjustment by multiplying the inflation factor by the Company's residual O&M expense (id.).

2. Position of the Parties

Fitchburg states that, in order for a utility to recover an inflation adjustment, the company must show that it has contained costs (Fitchburg Brief at 82). The Company argues that its payroll costs have been contained through surveying and benchmarking activities[73] (id., citing Exhs. DTE 4-5; AG 5-12 (gas); AG 5-13 (gas); AG 5-13 (electric); RR-AG-7; Tr. 11, at 1351-1352, 1363). As evidence of its other cost containment efforts, Fitchburg argues that it has decreased employee fringe benefits, decreased O&M property and liability insurance expense; and decreased health care costs (e.g., Fitchburg states that its total medical and dental insurance costs decreased from 1992 to the test year) (id. at 82-83, citing Exhs. AG 1-51; AG 1-52). Therefore, Fitchburg argues that it has met the Department's requirements for an inflation allowance (id. at 83). No other parties commented on this issue.

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[72] The Company initially reported a projected inflation rate of 2.54 percent (Exhs. FGE MHC-1 (gas), Sch. MHC-7-15; FGE MHC-1 (electric), Sch. MHC-7-12). The Hearing Officer granted the Company's motion to admit the revised inflation factor on November 18, 2002.

[73] The Company states that, for the period 1996 to the test year, its gas division O&M payroll increased by only two percent, while the Company's electric division O&M payroll decreased during the same five-year period (Fitchburg Brief at 82, citing RR-DTE-6).

3. Analysis and Findings

The inflation allowance recognizes that known inflationary pressures tend to affect a company's expenses in a manner that can be measured reasonably. D.T.E. 01-56, at 71; D.T.E. 98-51, at 100; D.T.E. 96-50 (Phase I) at 112; D.P.U. 95-40, at 64. The adjustment recognizes the likely cost of providing the same level of service in the future as was provided in the test year. The Department permits utilities to increase their test year residual O&M expense by the projected GDPID from the midpoint of the test year to the midpoint of the rate year. D.P.U. 95-40, at 64; D.P.U. 92-250, at 97; D.P.U. 92-78, at 60. In order for the Department to allow a utility to recover an inflation adjustment, the utility must demonstrate that it has implemented cost containment measures. D.P.U. 96-50 (Phase I) at 113.

The fact that the Company has decreased payroll expense for its electric division, decreased employee fringe benefits from 1996 to the test year, decreased average health care cost per employee from 2000 to the test year 2001, and decreased total medical and dental insurance costs from 1992 to the test year 2001 is evidence that the Company has implemented cost containment measures. Accordingly, the Department finds that an inflation allowance adjustment equal to the most recent forecast of GDPID for the appropriate period as proposed by the Company, applied to Fitchburg's approved level of residual O&M expenses, is proper in this case.

If an O&M expense has been adjusted or disallowed for ratemaking purposes, that expense is also removed in its entirety from the inflation allowance. D.P.U. 88-67 (Phase One) at 141 (1988); D.P.U. 87-122, at 82 (1987). The Department has adjusted the

Company's gas O&M expenses for incentive payments, meter removals and rate case expense. The Department has adjusted the Company's electric expenses for incentive payments, meter removals, other power supply costs, and rate case expense. Accordingly, these items must be removed from Fitchburg's gas and electric residual O&M expense calculations. Thus, the calculation of the inflation allowance is set forth on the following pages. As shown on Table 1 (gas) and Table 1 (electric), the inflation allowance is $88,988 for Fitchburg's gas division and $159,408 for its electric division. Accordingly, the Department will reduce the Company's proposed gas division cost of service by $3,851 and will reduce the Company's proposed electric division cost of service by $6,805.

TABLE 1 GAS

TEST YEAR O&M EXPENSES EXCLUDING GAS		$5,724,453
LESS: TEST YEAR ADJUSTMENTS		
Payroll	$1,454,702	
Medical and Dental Insurance	$127,778	
Pension	($80,189)	
Post Employment Benefits other than Pensions	$179,730	
Property and Liability Insurances	$129,753	
Uncollectible Expense	$652,015	
USC Service Charge	$12,481	
Legal Fees	$195,864	
Advertising/Promotions	$3,781	
Gas/Electric Allocations	$53,140	
WH & CB Rental Program	$63,980	
Postage	$56,069	
LESS: ITEMS NOT SUBJECT TO INFLATION		
Membership Fee	$2,201	
Amortization of Rate Case Costs	$104,881	
Fixed Leases	($45,025)	
Subtotal		$2,911,161
O&M EXPENSES SUBJECT TO INFLATION PER COMPANY		$2,813,292
LESS: DTE Adjustments		
Incentive Compensation		$60,522
Meter Removal		$56,164
DTE Sub-total		$116,686
Total Residual O&M Expense		$2,696,606
Inflation Increase to be applied to the Company's Residual O&M Expense		**3.30%**
INFLATION ALLOWANCE		$88,988

TABLE 1 ELECTRIC

TEST YEAR O&M EXPENSES		$7,545,924
LESS: TEST YEAR ADJUSTMENTS		
Payroll	$1,401,036	
Medical and Dental Insurance	$163,276	
Pension	($105,778)	
Post Employment Benefits other than Pensions	$317,264	
Property and Liability Insurances	$116,670	
Uncollectible Expense	$615,218	
USC Service Charge	$24,743	
Advertising/Promotions	$10,786	
Gas/Electric Allocations	($53,140)	
WH & CB Rental Program	$15,432	
Postage	$107,016	
LESS: ITEMS NOT SUBJECT TO INFLATION		
Membership Fee	$7,277	
Fixed Leases	($80,323)	
Subtotal		$2,539,477
O&M EXPENSES SUBJECT TO INFLATION PER COMPANY		$5,006,447
LESS: DTE Adjustments		
Incentive compensation	$107,969	
Meter Removals	$21,715	
Rate Case Expense	$13,819	
Other Power Supply Expense	$32,412	
DTE Sub-total		$175,915.0
Total Residual O&M Expense		$4,830,532
Inflation Increase to be applied to the Company's Residual O&M Expense		**3.30%**
INFLATION ALLOWANCE		$159,408

O. Rate Case Expense

1. Introduction

In its initial filing, Fitchburg stated that it expected to incur $495,750 in gas rate case expense and $751,750 in electric rate case expense (Exhs. FGE MHC-1 (gas), Sch. MHC-7-16; FGE MHC-1 (electric), Sch. MHC-7-13).[74] On October 24, 2002, Fitchburg reported that the total rate case expense amounts for gas and electric were $731,889 and $764,301, respectively (Exhs. FGE MHC-1 (gas), Sch. MHC-7-16 (supp.); FGE MHC-1 (electric), Sch. MHC-7-13 (supp.))[75] Fitchburg proposes to normalize[76] its gas and electric rate case expenses over seven years[77] (Exhs. FGE MHC-1 (gas), Sch. MHC-7-16; FGE MHC-1

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74 Separate rate case expense estimates for Fitchburg's gas and electric divisions were calculated by allocating 35 percent of total rate case expense to gas and 65 percent of total rate case expense to electric. These allocation percentages are derived from Fitchburg's gas and electric allocation study (Exh. DTE 6-1).

75 The evidentiary record remained open until the final day of the briefing period (October 24, 2002) to allow Fitchburg to update its rate case expense. The Company's proposed rate case expense is admitted into the evidentiary record as Exhibit FGE MHC-1 (gas), Schedule MHC-7-16 (supplemental), and Exhibit FGE MHC-1 (electric), Schedule MHC-7-13 (supplemental).

76 Fitchburg's initially proposed a seven-year amortization period for rate case expenses (Exhs. FGE MHC-1 (gas), Sch. MHC-7-16; FGE MHC-1 (electric), Sch. MHC-7-13). On brief, however, the Company proposes to normalize its rate case expenses (Company Brief at 84, 89).

77 Fitchburg's last four gas rate cases were: D.T.E. 02-24/25 (filed May 14, 2002), D.T.E. 98-51 (filed May 15, 1998), D.P.U. 84-145 (filed July 15, 1984), and D.P.U. 1214 (filed July 16, 1982). The differences (4 years plus 13.83 years plus 2 years) divided by three and rounded to the nearest whole number results in a normalization period of seven years.

Fitchburg's last four electric rate cases were: D.T.E. 02-24/25 (filed May 14, 2002), (continued...)

(electric), Sch. MHC-7-13). Normalization would result in an increase of $70,821 to the Company's gas division revenue requirement and an increase of $107,393 to the Company's electric division revenue requirement (RR-DTE-6 (electric), Sch. MHC-7-13; Exh. DTE-2-15; RR-DTE-6 (gas), Sch. MHC-7-16). At the close of the briefing period, the Company updated its gas and electric rate case expense to a total of $731,899 for its gas division and $764,302 for its electric division (Exhs. FGE Update (gas), Att. 2, at 32; FGE Update (electric), Att. 1, at 28). This resulted in an increase of $104,556 to the Company's gas division revenue requirement and an increase of $109,186 to the Company's electric division revenue requirement (Exhs. FGE Update (gas), Att. 2, at 32; FGE Update (electric), Att. 1, at 28).

2. Positions of the Parties

a. Attorney General

The Attorney General argues that the Department should deny the Company's proposed rate case legal expense (Attorney General Brief at 25). Specifically, the Attorney General argues that because the Company (1) did not solicit competitive bids for legal services related to its gas and electric rate cases, and (2) failed to supply an adequate explanation for its reason to forgo the competitive bidding process, the Department should deny recovery of legal services rendered in connection with the rate case (id. at 26). In addition, the Attorney General disputes the Company's contention that it received a written discount for rate case

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[77](...continued)
D.T.E. 99-118 (filed December 31, 1999), D.P.U. 84-145 (filed July 15, 1984), and D.P.U. 1270/1414 (filed September 17, 1982). The differences (3.33 years plus 15.42 years plus 1.83 years) divided by three and rounded to the nearest whole number results in a normalization period of seven years.

legal services (id., citing RR-AG-44). Finally, the Attorney General argues that the Company's normalization period for rate case expense should be ten years because the Company has proposed a ten-year price cap performance-based ratemaking plan ("PBR") (Attorney General Brief at 27).

b. Fitchburg

The Company argues that its rate case legal expense is reasonable and properly documented and, therefore, an appropriate level of such expense should be included in its gas and electric rates (Fitchburg Brief at 89). Fitchburg argues that it contained the cost of legal services by securing a written discount from its attorneys. In addition, the Company argues that it contained legal costs by using non-attorneys to handle a large volume of discovery where appropriate (id. at 87-89). Moreover, the Company argues that the law firm's familiarity with Fitchburg's filing and corporate structure made it appropriate for the Company to retain its long-standing counsel for these rate cases and not to use the competitive bidding process for legal services (id. at 86).

The Company argues that its proposal to normalize rate case expense over seven years is appropriate, as this is the average length of period between the filing dates of its last four rate case filings for both the electric and gas division (id. at 89). Finally, Fitchburg argues that the Department should allow recovery of rate case expenses through to the filing of compliance rates in this proceeding. Fitchburg argues that, because it has negotiated fixed fees for the activities of each of its consultants that are necessary to conclude this proceeding, these

expenses are known and measurable and should be approved (Fitchburg Reply Brief at 21-22).

3. Analysis and Findings

The Department's practice in determining the amount of rate case expense to include in base rates is to normalize these expenses so that a representative annual amount is included in the cost of service. D.T.E. 01-56, at 77; D.T.E. 98-51, at 54; D.P.U. 96-50 (Phase I) at 77; Berkshire Gas Company, D.P.U. 1490, at 33-34 (1983). Normalization is not intended to ensure dollar-for-dollar recovery of a particular expense; rather, it is intended to include a representative annual level of rate case expense. D.P.U. 96-50 (Phase I) at 77; D.P.U. 91-106/138, at 20.

In accordance with existing precedent, the Department determines the appropriate period for recovery of rate case expenses by taking the average of the intervals between the filing dates of a company's last four rate cases (including the present case), rounded to the nearest whole number. D.P.U. 91-106/138, at 19-20; D.P.U. 1490, at 33-34. Proper application of this precedent results in a normalization period of seven years, as proposed by the Company. See D.P.U. 96-50 (Phase I) at 78. However, the Attorney General argues that the normalization period should be ten years to match the term of the PBR plans proposed by the Company in D.T.E. 02-22 and D.T.E. 02-23. See D.T.E. 01-56, at 77; D.P.U. 96-50 (Phase I) at 78-79. However, Fitchburg does not yet have a PBR plan in place. Therefore, in accordance with existing precedent, the Department will normalize Fitchburg's gas and electric rate case expense over seven years.

The overall level of rate case expense among utilities has been, and remains a matter of concern for the Department. D.T.E. 98-51, at 57; D.P.U. 96-50 (Phase I) at 79; D.P.U. 93-60, at 145. Rate case expense, like any other expenditure, is an area where companies must seek to contain costs.[78] In an effort to control the costs of outside consulting and legal services, companies have been put on notice that the Department expects them to engage in a competitive bidding process for these services. D.T.E. 01-56, at 76; D.T.E. 98-51, at 59-60; D.P.U. 96-50 (Phase I) at 79. If a company decides to forgo the competitive bidding process, the company must provide an adequate justification for its decision to do so. D.T.E. 01-56, at 76; D.T.E. 98-51, at 59-60; D.P.U. 96-50 (Phase I) at 79. In preparing this rate case, Fitchburg was specifically directed to provide adequate justification for every instance where it decided not to use the competitive bidding process. The Company was further warned that failure to do so would result in a disallowance of that portion of rate case expense. D.T.E. 98-51, at 61.

In the present case, the Company has adequately supported its decision to forgo the competitive bidding process with respect to its cost of capital and cost of service studies. Fitchburg maintained that it did not competitively bid for its cost of capital and cost of service studies because the consultants chosen had an extensive working relationship with the Company, had developed similar studies in the Company's prior rate proceedings, and already

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[78] The Department has also found that rate case expenses will not be allowed in cost of service where such expenses are disproportionate to the relief being sought. See Barnstable Water Company, D.P.U. 93-223-B at 16 (1993).

had the historical data necessary to perform such studies (Exhs. FGE MHC-1, at 62-63 (gas); FGE MHC-1, at 64 (electric)).

With respect to outside legal services, Fitchburg's counsel has an in-depth knowledge of the complex structure of the Company, including its affiliates and combined gas and electric operations (Tr. 11, at 1325-1329). The same law firm has performed all of Fitchburg's regulatory work for a significant period of time (id. at 1328-1329). Therefore, the Department finds that Fitchburg has adequately justified its decision not to seek competitive bids for outside legal services. See D.T.E. 01-56, at 76; D.T.E. 98-51, at 59-60; D.P.U. 96-50 (Phase I) at 79.

The Department has directed companies to provide all invoices for outside services that detail the number of hours billed, the billing rate, and the specific nature of services performed. D.T.E. 98-51, at 61; D.P.U. 96-50 (Phase I) at 79. In D.T.E. 98-51, at 61, Fitchburg was put on notice that a failure to provide detailed information about the nature of all services in the Company's next rate proceeding would result in disallowance of this portion of rate case expense. In the present case, the invoices submitted by the Company to support its depreciation study provide the number of hours billed and the billing rates of those employees involved with the study (Exh. DTE 2-15). However, the depreciation study invoices fail to detail the specific nature of the services performed. Based on our review of the depreciation study and our familiarity with the nature of the work involved in performing a depreciation study, the Department will allow the Company to recover these amounts in rate case expense. However, in future rate proceedings the Company must provide invoices for all outside

services. Each invoice must include, at a minimum, the number of hours billed, the billing rate, and the specific nature of services performed. Failure to provide this detailed information will result in the disallowance of the corresponding portion of rate case expense.

The same outside consulting firm that conducted the Company's depreciation study in this proceeding also conducted its marginal and embedded cost of service studies. The invoices presented by the Company to support each of these studies include a "miscellaneous office expenses" adder of either three or five percent of the invoice total (id.). The invoices contain language that indicates this adder is for "telephone, reproduction, postage [and] data processing." The total amount of miscellaneous adder for the Company's gas division is $10,685, and the total amount for the Company's electric division is $10,657 (id.). Fitchburg presented no evidence to support the proposed adder, such as an itemization of actual postage or telephone expenses, and, therefore, the Department has no way to determine whether the miscellaneous office expense amounts are reasonable. On certain invoices, the Company was also billed a separate fee for secretarial services (id.). To allow recovery of both of miscellaneous office fees in addition to fees for secretarial services could result in Fitchburg's ratepayers being charged twice for the same services. For these reasons, the Department disallows $10,685 for the gas division and $10,657 for the electric division in miscellaneous office expenses as insufficiently supported or justified by Fitchburg.

In D.T.E. 98-51, at 57-58, the Department stated that where a portion of a company's rate case expense is for work performed by a corporate parent or affiliate, our review of compliance with the requirement to justify the reasonableness of rate case expense is more

stringent.[79] In the present case, Fitchburg proposes recovery of $27,737 ($9,709 and $18,028 for the Company's gas and electric divisions, respectively) in rate case expenses charged from its affiliate Unitil Service (Exh. DTE 2-15). However, invoices submitted for recovery of Unitil Service's charges contain no description of the services rendered. Therefore $9,709 and $18,028 for the Company's gas and electric divisions, respectively, in Unitil Service rate case expense is disallowed as insufficiently supported or justified by Fitchburg.

As support for its updated rate case expense, Fitchburg submitted an itemization of actual expenses. However, Fitchburg also proposes to recover $65,555[80] in costs for work to be done by the Company's law firm, MAC (depreciation-related costs, allocated marginal cost studies, and revenue requirement expenses), and temporary help for completion of the rate case (Fitchburg Reply Brief, Att. 3). The Department's longstanding precedent allows only known and measurable changes to test-year expenses to be included in the cost of service.

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79 The Department stated that in such circumstances where charges are incurred by a parent or affiliate, there are no natural incentives for a company to control its costs. D.T.E. 98-51, at 57-58. We further stated that there can be a financial incentive for the parent or affiliate to inflate such charges to the utility in order to increase corporate profits at the expense of monopoly ratepayers. D.T.E. 98-51, at 58-59; Boston Edison Company, D.T.E./D.P.U. 97-63, at 63, n.20 (1998); Standards of Conduct, D.P.U./D.T.E. 97-96, at 18-19 (1998).

80 The Company proposes to recover the following gas-related costs to complete its rate case: $2,500 for legal expenses, $16,600 for MAC allocated and marginal cost studies and revenue requirements, $1,295 for MAC depreciation expenses, and $8,879 for expenses associated with temporary help (Fitchburg Reply Brief, Att. 3, at 3). The total amount of gas-related expenses is $29,274 (id.). The Company proposes to recover the following electric-related costs to complete its rate case: $2,500 for legal expenses, $16,600 for MAC allocated and marginal cost studies and revenue requirements, $2,405 for MAC depreciation expenses, and $14,776 for expenses associated with temporary help (id. Att. 3, at 2). The total amount of electric-related expenses is $36,281 (id.).

D.T.E. 98-51, at 62. Proposed adjustments based on projections or estimates are not known and measurable and recovery of those expenses is not allowed. D.T.E. 01-56, at 75; D.T.E. 01-50, at 22. Rather than rely on projected costs, Fitchburg proposes to recover the fixed fees it negotiated for each of its consultants to conclude this proceeding (Fitchburg Reply Brief at 21-22). However, the Company has presented no evidence to support the reasonableness of these negotiated costs. Therefore $65,555 in future rate case expense is disallowed as insufficiently supported or justified by Fitchburg.

We do not preclude the recovery of fixed fees for completion of work in a rate case, but the reasonableness of the fixed fees must be supported by sufficient evidence. This disallowance of $65,555 results only from a failure of proof of the reasonableness of the level of effort and consequent expenditure to carry the case through the compliance filing. In future cases, given an adequate showing that fixed contracts to complete a case after the record closes and briefs are filed are reasonable, a company may qualify to recover such expenses. The reason for this shift in Department practice is threefold. First, completing the case through the compliance filing is an inescapable regulatory requirement. Second, the cost of making that requirement is not negligible and may, in fact, be substantial, and third, it is not fair to levy a requirement and deny recovery of properly documented and reasonable costs incurred to satisfy that requirement. Documented and itemized proof will, however, be a prerequisite to recovery.

Fitchburg conducted several studies to support its rate filing. In particular, it conducted several marginal cost studies for its rate case that were not used to design delivery rates in this proceeding. Specifically, the Company did not use the following studies in setting rates: (1) marginal transmission costs; (2) marginal commodity costs; and (3) marginal production capacity costs. The unbundling of the natural gas industry and the restructuring of the electric utility industry has rendered several categories of marginal cost studies unnecessary for the purpose of designing delivery rates. Therefore, in its next rate filing the Company is directed to only file marginal cost studies for customer costs and distribution costs for its gas and electric divisions.

The proper method to calculate a rate case expense adjustment is to determine the rate case expense, normalize that expense over an appropriate period, and then compare it to the test year level to determine the adjustment. D.T.E. 98-51, at 62; D.P.U. 95-40, at 58. In its initial filing and subsequent update, Fitchburg failed to compare its proposed normalized expense to the test year level of expense to determine the rate case adjustment. During the test year, Fitchburg booked $104,881 in rate case expense related to its gas division, $13,819 in rate case expense related to its electric division (Exhs. FGE MHC-1 (gas), Sch. MHC-7-15, at 4; FGE MHC-1 (electric), Sch. MHC-7-18).

Based on the findings above, the Department concludes that the correct level of normalized gas rate case expense is $97,496 ($682,470 divided by seven years). Because the Company expensed $104,881 in gas division rate case expense during the test year, the Department finds that the appropriate adjustment to test year gas rate case expense is a

reduction of $7,385, producing a reduction to the Company's proposed gas division cost of service of $119,941. In addition, the Department concludes that the correct level of normalized electric rate case expense is $99,941 ($699,586 divided by seven years). Because the Company expensed $13,819 in electric division rate case expense during the test year, the Department finds that the appropriate level of adjustment to test year electric rate case expense is an increase of $86,122, producing a reduction to the Company's proposed electric division cost of service of $23,064.

P. Rental Program - Non-Utility Allocations

1. Introduction

In D.P.U. 1270/1414, at 78 (1983), the Department placed Fitchburg on notice that its electric appliance rental program should be placed "below the line" for ratemaking purposes in its next electric base rate proceeding, in the absence of reasonable justification. The Company was directed to provide as part of its next base rate proceeding the necessary allocations to move all revenues, plant and expenses below the line. Id. at 79. In D.T.E. 98-51, at 67, the Department accepted Fitchburg's proposal to place its gas conversion burner and water heater rental programs below the line, but directed the Company to provide as part of its next gas base rate proceeding allocation factors for each of the following accounts: 901; 903; 904; 905; 907 to 910; 920 to 922; 928; 930; and 935.

Accordingly, at the end of the test year, Fitchburg performed an allocation study to determine the costs of its gas and electric rental programs (Exhs. FGE MHC-1, at 66, 93 (gas); FGE MHC-7 (gas); FGE MHC-7 (electric)). According to the Company, its rental

programs are similar to those of Massachusetts Electric Company. Therefore, Fitchburg's allocation study relied on the same allocation methods approved by the Department in Massachusetts Electric Company, D.P.U. 89-194/195, at 49 (1990) (Exhs. FGE MHC-1, at 67 (gas); FGE MHC-1, at 68 (electric)).[81] Consistent with the Department's directives in D.T.E. 98-51 and D.P.U. 1270/1414, the Company has proposed below-the-line rate-making treatment for its gas and electric its rental appliance programs (Exhs. FGE MHC-1, at 66 (gas); FGE MHC-1 (gas), Sch. MHC-7-17; FGE MHC-1, at 67 (electric); FGE MHC-1 (electric), Sch. MHC-7-14).

For its gas division, the Company initially removed $58,739 in test year expenses allocated to the rental programs from cost of service (Exhs. FGE MHC-1, at 66 (gas); FGE MHC-1 (gas), Sch. MHC-7-17). In order to ensure symmetry between expenses and revenues, the Company also proposed to remove the actual test year rental programs revenues of $411,258 from the gas division's other operating revenues (Exhs. FGE MHC-1, at 32 (gas); FGE MHC-1 (gas), Sch. MHC-7-17). The Company proposes to treat the test year expenses and revenues of its electric division rental water heater program in the same manner that it treated the test year expenses and revenues of its gas division rental programs. Accordingly, the Company initially proposed to remove water heater rental costs of $15,163 from its test year other operating expenses, and to remove water heater rental revenues of $48,333 from its

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[81] Massachusetts Electric Company used a revenue allocator for all accounts except Account 904 - Uncollectible Expense, which is a direct charge. Because the Company considered the issue of an appropriate non-utility allocator for Account 924 - Property Insurance to be one of first impression, Fitchburg used gross plant to allocate property insurance between the utility and the rental programs (Exh. FGE MHC-1, at 67 (gas)).

test year other operating revenues (Exhs. FGE MHC-1, at 67 (electric); FGE MHC-1 (electric), Sch. MHC-7-14).

The Company subsequently revised its gas division rental program adjustments to $67,050, an increase of $8,311, because it had neglected to allocate (1) liability insurance, (2) URT, (3) property tax, and (4) the amortization of intangible assets to the Company's rental programs (Exh. FGE Update (gas), Att. 2, at 34). Also, the Company updated the rental program expense to account for pro forma adjustments to (1) the URT, (2) liability insurance, (3) medical and dental insurance, and (4) PBOP, all of which have a portion of their test year expense allocated to the rental programs (id.). For the same reasons, the Company also updated the expenses removed from its cost of service that were allocated to its electric division rental program to $15,568, resulting in an increase of $495 (Exh. FGE Update (electric), Att. 1, at 29-30).

2. Positions of the Parties

a. Attorney General

The Attorney General states that when the Company made adjustments to its pro forma cost of service to remove the costs and revenues associated with its non-utility rental programs, it failed to allocate any of the following five pro forma expense increases to the Company's rental programs: (1) property and liability insurance expenses of $9,116 (gas) and $111,138 (electric); (2) medical and dental insurance expenses of $37,844 (gas) and $22,729 (electric); (3) PBOP and URT expenses of $11,513 (gas) and $54,556 (electric); (4) property tax expenses of $166,327 (gas) and $128,062 (electric); and (5) amortization of intangible assets of

$85,387 (gas) and $190,072 (electric) (Attorney General Brief at 31-32). The Attorney General argues that the Department should direct the Company to allocate these five pro forma expense increases to the Company's rental programs for its gas and electric divisions to ensure that ratepayers do not subsidize the business costs of these affiliates (id. at 32).

The Attorney General states that the Company has allocated costs to the rental programs using a revenue allocator, which assigns 1.08 percent for the gas division's costs and 0.72 percent for the electric division's costs to the respective division's rental programs (Attorney General Brief at 32, Attorney General Reply Brief at 22). Accordingly, the Attorney General argues that the Department should use the same percentage to assign these cost adjustments to the non-utility rental programs (Attorney General Brief at 32).

Further, the Attorney General argues that the Company's request to use the non-utility/utility revenue allocator for all accounts not yet allocated and for all pro forma adjustments is contrary to Department precedent on cost causation principles (Attorney General Reply Brief at 22, citing Fitchburg Brief at 92, n.29). Finally, the Attorney General states that the Company failed to support its assertion that it properly allocated medical and dental expense to non-utility operations, and therefore, the Department should apply the non-utility/utility revenue allocator to these expenses as part of the pro forma adjustment for payroll expenses (id. at 22, n.21).

b. Fitchburg

In response to the Attorney General's argument, the Company agrees that it failed to allocate (1) liability insurance; (2) URT expenses; (3) property tax; and (4) amortization of

intangible assets to the Company's rental programs for its gas and electric divisions (Fitchburg Brief at 91).[82] The Company states, however, that medical and dental expenses and PBOP were correctly allocated to the rental programs in the test year, so no change is necessary to the levels allocated (id. at 91-92, citing Exhs. FGE MHC-1 (gas), Sch. MHC-7-17, at 131; FGE MHC-1 (electric), Sch. MHC-7-14, at 125).

The Company argues that the revenue allocator can be used for "other allocation," including Account 925 (id. at 92, citing D.T.E. 01-50, at 12). Therefore, the Company requests that the Department approve its use of the revenue allocator for Account 925 as well as for all pro forma adjustments to the accounts that will be allocated in Fitchburg's compliance filing (id. at 92).

3. Analysis and Findings

The Company has complied with the Department's directives in D.P.U. 1270/1414, at 78-79, and D.T.E. 98-51, at 67 to place the rental programs "below the line," and to allocate a portion of the test year expenses to its rental programs for each of the following accounts: 901; 903; 904; 905; 907 to 910; 920 to 922; 928; 930; and 935. The Company placed the rental programs below the line for its gas and electric divisions by removing both the related revenues and expenses from cost of service.

With respect to the expenses allocated to the rental programs, the Attorney General argues that there is no evidence that the Company allocated medical and dental expenses to its

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[82] Fitchburg revised it rental program expenses to recognize these additional allocations (Exhs. FGE Update (gas), Att. 2, at 33; FGE Update (electric), Att. 1, at 29).

rental programs. We disagree. The Company has allocated medical and dental expenses to its rental programs using a revenue allocator (Exhs. FGE MHC-1 (gas), Sch. MHC-7-17, at 131; FGE MHC-1 (electric), Sch. MHC-7-14, at 125). Moreover, Fitchburg has allocated a portion of the following expenses to the rental programs: (1) liability insurance; (2) URT; (3) property tax; and (4) amortization of intangible assets (Exhs. FGE Update (gas), Att. 2, at 33; FGE Update (electric), Att. 1, at 29). Consistent with our treatment of the Company's medical and dental insurance expense in Section V(C)(3), above, the Department finds that a corresponding increase to the Company's proposed cost of service for its gas division is $322. Also, for these same reasons, a corresponding increase to the Company's proposed electric cost of service of $12 is warranted.

We deny the Company's request to approve the use of the revenue allocator for all pro forma adjustments to all accounts that will be allocated in the compliance filing. Fitchburg will rerun expenses approved by the Department through the cost of service study using the allocators approved by the Department in this proceeding.

Q. Deferred Farm Discount Credits

1. Introduction

Pursuant to the Electric Restructuring Act, St. 1997, c. 164, § 315 ("Restructuring Act" or "Act"), Fitchburg has provided certain gas division customers engaged in agriculture or farming an additional ten percent reduction ("farm discount") in the rates to which such customers would otherwise be subject (Exh. FGE MHC-1, at 35 (gas)). In D.T.E. 98-51,

at 149, the Department stated that "the Company shall be allowed to defer the farm credit revenue shortfall for consideration in its next general rate case." The Company proposes to recover $7,424 in accumulated farm discount credits since December 1998 (Exhs. FGE MHC-1, at 35 (gas); FGE MHC-1 (gas), Sch. MHC-7-4).[83] The Company proposes to recover this amount over a seven-year amortization period, or $1,061 per year (Exh. FGE MHC-1, at 35 (gas)). G.L. c. 164, § 85, ¶ 2, cl. (c).

2. Positions of the Parties

a. Attorney General

The Attorney General argues that, if the Department adopts a PBR plan for Fitchburg, the remaining balance of the farm discount should be amortized over the term of the plan (Attorney General Brief at 78). The Attorney General cites D.T.E. 01-56, at 36 as support for this treatment (id.).

b. Fitchburg

Fitchburg contends that as the Department has not approved its proposed PBR plans, the Attorney General's proposal to amortize the farm discount over the life of the plan cannot be addressed in this proceeding (Fitchburg Brief at 49). Therefore, the Company argues that the Department should approve its farm discount expense and amortize it over a seven-year period (id.). The Company claims that its proposed seven-year amortization is consistent with its requested amortization period for rate case expense (id.).

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[83] Fitchburg is not seeking recovery for farm discounts associated with the Company's electric division.

3. Analysis and Finding

The Attorney General argues that the normalization period should be ten years to match the term of the PBR plans proposed by the Company in D.T.E. 02-22 and D.T.E. 02-23. However, the Department has not yet undertaken an investigation of these matters. Therefore, the Department will amortize Fitchburg's farm discount expense over seven years, which is consistent with the seven-year normalization period approved for the Company's rate case expense.

R. Default Service Solicitation

1. Introduction

Fitchburg used the Enermetrix Exchange ("Enermetrix") for two default service procurements issued in September 2001 and March 2002 (RR-AG-34). Enemetrix is an Internet-based auction service used by distribution companies to post their natural gas and electric energy needs for bids. At the time of these default service solicitations, Unitil had an approximate nine percent ownership interest in Enermetrix (Tr. 9, at 1115). The Department has stated that default service prices "should be market-based" and should be "procured through reasonable business practices." Pricing and Procurement of Default Service, D.T.E. 99-60-A at 4-5 (2000). In addition, Department regulations provide that, in transactions between distribution companies and affiliated entities, the affiliate must not charge the distribution company a price greater than the market price. 220 C.M.R. § 12.04(3). Department regulations define an affiliate as "any division within a distribution company or its

parent, or any separate legal entity either owned or subject to the common control of the distribution company or its parent." 220 C.M.R. § 12.02.

2. Positions of the Parties

a. Attorney General

Because the Company used Enermetrix to procure its default service, the Attorney General contends that Fitchburg violated the Department's affiliate transaction regulations (Attorney General Brief at 78-79). The Attorney General notes that Enermetrix was partially owned by Unitil, Fitchburg's parent corporation, at the time of the procurements (Attorney General Brief at 78, citing Tr. 9, at 1113-1116). Therefore, the Attorney General alleges that Enermetrix is a non-regulated affiliate of the Company (Attorney General Brief at 78-79). Because the Company did not issue requests for proposals ("RFPs") to solicit bids for Fitchburg's September 2001 and March 2002 default service procurements, the Attorney General argues that Fitchburg has not shown that the fees paid to Enermetrix are less than market value, or less than what would have been paid through the use of an RFP procurement (id. at 79). Therefore, the Attorney General argues that Fitchburg violated the Department's affiliate transaction regulations (id. at 78-79). As a remedy, the Attorney General asks that the Department conduct a public hearing and assess monetary penalties against Fitchburg as provided in 220 C.M.R. § 12.04(1) (id.).[84]

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[84] The Attorney General requests that the Department refund to default service customers the amount of the Enermetrix fees. Such a penalty would result in refund of $0.0002 per KWH for the first alleged violation, and, for the second alleged violation, a refund of $0.000275 per KWH for residential and small C&I customers and $0.0003 KWH for (continued...)

b. Fitchburg

The Company argues that the Attorney General's allegations regarding Enemetrix are beyond the scope of this proceeding, unsupported by the record, and erroneous as a matter of law (Fitchburg Brief at 165). The Company argues that it did not violate the Department's affiliate transaction regulations because Enermetrix is not an affiliate of either Fitchburg or Unitil (id. at 167). Fitchburg states that, at the time the default service transactions took place, Unitil had less than a nine percent investment in Enermetrix (Fitchburg Brief at 167, citing Tr. 9. at 1115-1116).[85] Fitchburg argues that this amount did not render Enermetrix an affiliate "owned or subject to the common control" of either Fitchburg or Unitil (Fitchburg Brief at 167, citing G.L. c. 164, § 85; 220 C.M.R. § 12.02). In addition, Fitchburg argues that its use of Enermetrix complied with the competitive bidding process, which resulted in the Company having the lowest default service rates in the Commonwealth (id. at 166-167).

3. Analysis and Findings

The question of whether Fitchburg's use of Enermetrix constitutes a violation of our affiliate transaction regulations is beyond the scope of this rate case investigation. The Attorney General raised the issue for the first time on brief. For the reasons discussed below, the Department will open a separate investigation to consider whether Fitchburg's use of

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[84](...continued)
medium and large C&I customers (Attorney General Brief at 79).

[85] Fitchburg states that Unitil has divested itself of all remaining ownership of Enermetrix (Tr. 9, at 1115).

Enermetrix violated the G.L. c. 164, § 85[86] and the Department's affiliate conduct rules, 220 C.M.R. § 12.04.

Although the Department was aware that Fitchburg used Enermetrix for the two default service solicitations in question, Fitchburg did not bring Unitil's ownership interest in Enermetrix to the Department's attention in its filings requesting approval of its default service prices.[87] Therefore, the Department takes this opportunity to remind the Company that, when seeking approval of transactions such as its default service prices, it must clearly bring to the Department's attention all dealings that involve companies in which Fitchburg, its parent or its subsidiaries may have a financial interest.

VI. CAPITAL STRUCTURE AND RATE OF RETURN

A. Capital Structure, Cost of Long-Term Debt and Preferred Stock

1. Introduction

Fitchburg proposes to use a capital structure consisting of 56.8 percent long-term debt, 40.8 percent common equity, and 2.4 percent preferred stock (RR-DTE-6 (gas); RR-DTE-6 (electric)). The Company proposes a rate of 6.81 percent for its cost of preferred stock (Exhs. FGE MHC-1, at 73 (gas); FGE MHC-1, at 74 (electric)). The Company initially proposed a rate of 7.55 percent for its cost of long-term debt, but later reduced this rate to 7.49 percent (Exhs. FGE MHC-1, at 73 (gas); FGE MHC-1, at 74 (electric); RR-DTE-6, at 41 (gas); RR-DTE-6, at 38 (electric)).

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86 See, in particular, G.L. c. 164, § 85, ¶ 2, cl. (c).

87 Fitchburg argues that it did, however, disclose Unitil's ownership interest in Enermetrix in Unitil's 1999 Form 10-K and Unitil's 2000 Annual Report to Shareholders.

Fitchburg meets its short-term financing requirements by borrowing at cost from Unitil's money pool (Tr. 1, at 66).[88] At the end of the test year, the Company's total short-term debt balance was $15,225,847, representing 23 percent of its total debt balance (Exhs. AG 1-6 (gas) (confidential), Att. 3; FGE MHC-1 (electric), Sch. MHC-12). The Department regularly excludes short-term debt from a company's capital structure because short-term debt is generally not used to finance costs included in rate base. Short-term debt is primarily used to finance (1) construction and (2) the day-to-day operations of the utility. See, e.g., Massachusetts Electric Company, D.P.U. 19497, at 32 (1978). The interest costs associated with short-term debt used for these purposes is provided for through the utility's allowance for funds used during construction ("AFUDC") and the working capital allowance, respectively. New England Telephone and Telegraph Company, D.P.U. 86-33-G at 380-381 (1989). Another factor in excluding short-term debt from the capital structure is that short-term balances and interest rates are often considered too volatile to be representative of a company's long-term capital costs. D.P.U. 95-40, at 85; D.P.U. 86-33-G at 380-381. However, the Department has occasionally included short-term debt in capital structure upon a demonstration that the utility's short-term debt functions as long-term debt. D.P.U. 86-86, at 22-23; Chatham Water Company, D.P.U. 323, at 8 (1981).

2. Positions of the Parties

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[88] The Unitil money pool is a vehicle to provide short-term financing for Unitil's utility subsidiaries, by allowing participants to deposit surplus cash into the pool from which all participants can borrow to meet daily working capital requirements. Fitchburg Gas and Electric Light Company/UMC Electric Company, D.P.U. 89-66, at 3-4 (1992).

a. Attorney General

The Attorney General argues that Fitchburg's financial practices warrant a departure from the Department's general policy against inclusion of short-term debt in capitalization (Attorney General Reply Brief at 33). The Attorney General maintains that the Company finances a substantial portion of its operations, including short and long term projects, by borrowing from Unitil's money pool (Attorney General Brief at 46-47; Attorney General Reply Brief at 34). Acknowledging that short-term debt is often excluded from capital structure because it is considered too volatile and not representative of capital costs, the Attorney General argues instead that Fitchburg's short-term debt balances are substantial and have been relatively stable. As a result, the Attorney General argues that Fitchburg's short-term debt acts in the same manner as long-term debt (Attorney General Reply Brief at 33).

By excluding short-term debt from its capital structure, the Attorney General argues that Fitchburg's shareholders benefit at the expense of its ratepayers (Attorney General Brief at 46-47; Attorney General Reply Brief at 33). The Attorney General contends that the Company is able to charge customers for carrying costs on investments, including cash working capital, at its overall pretax cost of capital at twelve percent, while paying short-term interest rates in the two to four percent range (Attorney General Brief at 46-47). The Attorney General argues that including short-term debt in capital structure is standard for Fitchburg's affiliates in New Hampshire and in several other states, including North Carolina and Illinois (Attorney General Reply Brief at 33-34). Accordingly, the Attorney General proposes to

include Fitchburg's short-term debt in its capital structure, with a resulting decrease in the Company's overall cost of debt.

b. Fitchburg

Fitchburg argues that short-term debt should remain excluded from its capital structure because it represents temporary financing that is generally replaced by long-term debt when a project is completed (Fitchburg Brief at 157). In considering this issue, Fitchburg contends that the Department should not look to the Company's percentage of short-term debt compared to its total outstanding debt. Rather, Fitchburg maintains that the Department should continue to find that short-term debt balances are too volatile for inclusion in capital structure, and do not accurately represent a company's long-term capital costs (Fitchburg Brief at 157, citing D.P.U. 95-40; Fitchburg Reply Brief at 27). In addition, the Company argues that because short-term debt is already taken into account in the calculation of a company's AFUDC, including short-term debt in the cost of capital calculation would result in double-counting (Fitchburg Reply Brief at 27).

3. Analysis and Findings

As a general policy, the Department does not include short-term debt in capital structure because it is traditionally used to finance construction. However, on occasion, the Department has included short-term debt when it is demonstrated that the utility's short-term debt plays the role of long-term debt. D.P.U. 86-86, at 22-23; D.P.U. 323, at 8.

Short-term debt as a percentage of total debt has increased dramatically for utilities across the Commonwealth in the past six years.[89] If companies finance too much of their operations through short-term debt, access to capital for construction is limited because lines of credit that would otherwise be used to finance the construction of new plant become exhausted. Also, volatility in short-term interest rates would result in large additional interest expenditures that would adversely affect the utility's net income. The Department has reviewed other Massachusetts utilities' annual reports and found that, based on 2001 data, Fitchburg finances a small portion of its operations through short-term debt in comparison to other utilities.

Fitchburg's short-term debt balances in recent years have been relatively stable and are substantial, characteristics typically seen in long-term debt. However, sharing these characteristics is not, in and of itself, sufficient to demonstrate that short-term debt is being used as a substitute for long-term debt. Fitchburg's capital structure of approximately $92.5 million exceeds its total gas (distribution and production) and electric (transmission and distribution) plant investment of approximately $82.4 million by over $10 million (Exhs. FGE MHC-1 (gas), Sch. MHC-4; FGE-MHC-1 (electric), Sch. MHC-4; FGE MHC-1 (gas), Sch. MHC-12). This coverage indicates that the Company has not been relying on

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89 For example, Western Massachusetts Electric Company's short-term debt as a percent of total debt has increased eleven-fold from 1995 (7.1 percent) to 2001 (79.2 percent). In the same time-span, Boston Edison Company's short-term debt as a percent of total debt has increased from 9.3 percent to 57.1 percent (Western Massachusetts Electric Company 1995, 2001 FERC Form No. 1: Annual Return at 112, 257; Boston Edison Company 1995, 2001 FERC Form No. 1: Annual Return at 112, 257).

short-term debt to finance its rate base, nor has the Department identified any unusual items in the Company's cash flow statements that would suggest the Company is using short-term debt in the manner claimed by the Attorney General (Exhs. AG 1-6 (gas) (confidential), Att. 2; AG 1-6 (electric) (confidential), Att. 2).

The record does not support a conclusion that Fitchburg is using short-term debt in place of long-term debt, so we will not include Fitchburg's short-term debt in its capital structure. Therefore, the Department will use Fitchburg's proposed capital structure of 56.8 percent long-term debt, 40.8 percent common equity, and 2.4 percent preferred stock to determine the Company's revenue requirement. The Department will consider including an appropriate percentage of short-term debt in a company's capital structure where there is a sufficient showing that it is being used to finance rate base assets.[90]

Fitchburg calculated its cost of long-term debt and preferred stock consistent with Department precedent (Exhs. FGE MHC-1 (gas), Sch. MHC-12; FGE MHC-1 (electric), Sch. MHC-12). D.P.U. 90-121, at 159-161. Therefore, the Department finds that Fitchburg's effective cost of long-term debt is 7.49 percent and that the effective cost of preferred stock is 6.81 percent.

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[90] The inclusion of short term debt in a company's capital structure may require accompanying modifications to the Department's regulatory policies involving construction work in progress and AFUDC, and a reevaluation of the risk component of a utility's return on equity. Therefore, the costs and benefits of including short term debt in a company's capital structure must be carefully assessed. Such an assessment requires a more complete record than we have here.

B. Rate of Return on Equity

1. Introduction

Fitchburg proposes an 11.5 percent rate of return on common equity ("ROE") (Exhs. FGE SCH-1, at 31 (gas); FGE SCH-1, at 34 (electric)). In determining its proposed cost of equity, the Company relied on the following three discounted cash flow ("DCF") methods: (1) constant growth DCF analysis; (2) non-constant growth market price DCF analysis; and (3) non-constant growth two-stage DCF analysis (Exhs. FGE SCH-1, at 14-17, 40 (gas); FGE SCH-1, at 14-17, 43 (electric)). In addition, the Company performed a risk premium analysis as a "check" of the reasonableness of the three DCF methods (Tr. 10, at 1128-1129).

Because Fitchburg is a wholly-owned subsidiary of Unitil, there are no market data for the Company's common stock and consequently no means to directly assess real or hypothetical investor expectations of the Company's projected required return. Therefore, the Company relied upon the market and financial data from eleven gas and 18 electric utilities ("comparison group") to determine its costs of equity (Exhs. FGE SCH-1, at 38, 40-43 (gas); FGE SCH-1 at 41, 43-46 (electric)). The DCF models were applied to all gas[91] and electric[92]

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[91] The gas comparison group is composed of the following companies: AGL Resources; Atmos Energy Corporation; Cascade Natural Gas; Energen Corporation; Laclede Gas, NICOR; Northwest Natural Gas; Peoples Energy; Piedmont Natural Gas; Southwest Gas; and WGL Holdings.

[92] The electric comparison group is composed of the following companies: Aliant Energy Corporation; Ameren; CINERGY; Cleco Corporation; Consolidated Edison; Constellation Energy Group; DPL Inc.; DQE; Energy East Corporation; Entergy Corporation; FPL Group Inc.; NSTAR; Potomac Electric Power; P.S. Enterprise Group; (continued...)

distribution companies for which complete and reliable data are available in the Value Line Investment Survey ("Value Line"), but eliminated those companies whose domestic utility revenues comprised less than 70 percent of total revenues (Exhs. FGE SCH-1, at 5 (gas); FGE SCH-1, at 5 (electric)). To avoid the possible irregularities attributable to the California energy crisis, Fitchburg did not include any electric utilities from Value Line's West Edition (Exh. FGE SCH-1, at 5 (electric)).

2. ROE Models

a. Discounted Cash Flow Analyses

i. Introduction

The DCF model is predicated on the concept that a stock's price represents the present value of all investor expected cash inflows from the stock. All three of Fitchburg's DCF analyses are based upon the following formula:

$$P_0 = D_1 / (1+k) + D_2 / (1+k)^2 + \ldots + D_\infty / (1+k)^\infty \qquad \text{equation (1)}$$

where P_0 is today's stock price; D_1, D_2, etc. are all expected future dividends; and k is the discount rate, or the investor's required ROE (Exhs. FGE SCH-1, at 14 (gas); FGE SCH-1, at 14 (electric)).

ii. Constant Growth DCF

The constant growth DCF model assumes that dividends per share are expected to grow at a constant rate, g, over time. Equation (1), therefore, can be solved for k and rearranged:

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[92](...continued)
SCANA Corporation; Southern Corporation; Teco Energy Inc.; and UIL Holdings Corporation.

$$k = D_1 / P_0 + g \qquad \text{equation (2)}$$

where k is the investors required ROE, D_1 / P_0 is the expected dividend yield, and g is the long term expected growth rate (Exhs. FGE SCH-1, at 14 (gas); FGE SCH-1, at 14-15 (electric)). Using the constant growth DCF model, the Company estimated its gas ROE between 11.9 percent and 12.4 percent and its electric ROE between 10.8 percent and 11.1 percent (Exhs. FGE SCH-1, at 31 (gas); FGE SCH-1, at 34 (electric)).

iii. Non-constant Growth DCF - Market Price

Under the market price version of the DCF model, equation (1) is altered to read:

$$P_0 = D_1 / (1+k) + D_2 / (1+k)^2 + \ldots + P_T / (1+k)^T \qquad \text{equation (3)}$$

where P_T is the estimated market price at the end of the transition period T and the other variables are the same as in equation (1) (Exhs. FGE SCH-1, at 15 (gas); FGE SCH-1, at 16 (electric)). No growth rate is included in this model. Using the market price model, Fitchburg estimated its gas ROE between 12.2 percent and 12.5 percent and its electric ROE between 12.4 percent and 12.6 percent (Exhs. FGE SCH-1, at 31 (gas); FGE SCH-1, at 34 (electric)).

iv. Non-constant Growth DCF - Two-Stage

The two-stage non-constant growth DCF approach is modeled by the following equation:

$$P_0 = D_0(1+g_1) / (1+k) + \ldots + D_0(1+g_2)^n / (1+k)^n + \ldots + D_0(1+g_T)^{(T+1)} / (k-g_T) \qquad \text{equation (4)}$$

where g_1, g_2, and g_t are the growth rates for each period from year T (the end

of the investor's holding period) to infinity (Exhs. FGE SCH-1, at 16 (gas); FGE SCH-1, at 16-17 (electric)). According to the Company, the first two growth rates are simply estimates for the fluctuating growth over "n" years (estimated to be five or ten years), and g_t is a constant growth rate assumed to prevail after year T. Using the two-stage growth DCF model, the Company estimated its gas ROE at 11.4 percent and its electric ROE between 10.5 percent and 10.6 percent (Exhs. FGE SCH-1, at 31 (gas); FGE SCH-1, at 34 (electric)).

b. Risk Premium Analyses

Risk premium techniques are based on the assumption that equity securities are riskier than debt and that equity investors require a higher ROE (Exhs. FGE SCH-1, at 17 (gas); FGE SCH-1, at 17 (electric)). Simple risk premium methods take currently observable market returns, such as government or corporate bond yields, and add an increment to account for the additional equity risk (Exhs. FGE SCH-1, at 12 (gas); FGE SCH-1, at 12-13 (electric)).

The Company used a three-month average[93] of the Moody's triple-B utility bond yield, rounded to 8.22 percent, as the currently observable market return on which to base its calculations (Exhs. FGE SCH-1, at 21, 35 (gas); FGE SCH-1, at 22, 38 (electric)). To estimate its gas equity risk, the Company found the difference between the averages of Regulatory Focus' authorized gas returns and Moody's average public utility bond yield from 1980 to 2001 to be 2.72 percent (Exh. FGE SCH-5, at 46 (gas)). Based on the inverse relation between interest rates and equity risk (Exh. FGE SCH-1, at 28-29 (gas)), the Company added

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[93] The three months used were January, February, and March 2002 (Exhs. FGE SCH-1, at 35 (gas); FGE SCH-1, at 38 (electric)).

an interest rate adjustment of 0.98 percent for a total gas equity risk premium of 3.71 percent (Exh. FGE SCH-5, at 46 (gas)).

To estimate its electric equity risk, the Company used the same techniques and found the difference between the averages of electric returns and utility bond yields to be 2.85 percent and the interest rate adjustment to be 0.97 percent (Exh. FGE SCH-5, at 49 (electric)). Adding these two figures, the Company estimated its total electric equity risk premium at 3.82 percent (id.).

Using risk premium analysis, Fitchburg calculated its gas ROE at 11.9 percent by adding the 8.22 percent observable bond yield to its 3.71 percent equity risk estimation and its electric ROE at 12.0 percent by adding this same 8.22 percent to its 3.82 percent equity risk estimation (Exhs. FGE SCH-1, at 31 (gas); FGE SCH-1, at 34 (electric)). In addition to its own risk premium calculation, the Company included two risk premium studies by Ibbotson Associates ("Ibbotson") and Harris and Martson ("Harris-Martson") (Exhs. FGE SCH-1, at 30 (gas); FGE SCH-1, at 32-33 (electric)). Using a geometric mean over the years 1926 to 2001, Ibbotson calculated a 4.9 percent risk premium for common stocks relative to corporate bonds (Exhs. FGE SCH-1, at 30 (gas); FGE SCH-1, at 32-33 (electric)). A 1992 risk premium study by Harris-Marston used analysts' growth estimates to conclude that the equity risk premium was 5.13 percent (Exhs. FGE SCH-1, at 29-30 (gas); FGE SCH-1, at 31, 33 (electric)). Fitchburg added the risk premium figures from the two published studies to Moody's 8.22 percent cost of debt, yielding a 13.1 percent and 13.4 percent ROE, respectively (Exhs. FGE SCH-1, at 31 (gas); FGE SCH-1, at 34 (electric)).

3. Positions of the Parties

a. Attorney General

i. Introduction

The Attorney General argues that the Department should reject the Company's DCF and risk premium analyses (Attorney General Brief at 64). The Attorney General further argues that the Department should reject the Company's requested ROEs and instead authorize an 8.67 percent return for the electric division and an 8.41 percent return for the gas division (id. at 65).

ii. Comparison Group

The Attorney General argues that Fitchburg's electric comparison group includes firms with vertically integrated electric companies, including risky generation, energy trading, oil, and other unregulated businesses (id. at 51). Further, the Attorney General argues that the Company's gas comparison group includes gas distribution companies that have pipeline, energy trading, and oil and gas exploration businesses (id. at 51-52). The Attorney General contends that the increased business risk of the comparison groups overstates the cost of equity for Fitchburg's gas and electric distribution business (id. at 52).

iii. Constant Growth DCF

The Attorney General argues that the Company did not use historical measures of growth in its projections of long-term growth, and that the three- to five-year growth forecasts that Fitchburg did use are too high to be representative of long-run sustainable growth in utility stocks (id. at 54). The Attorney General states that the Company's long-run growth estimates

of 7.17 percent for gas operations and 5.94 percent for electric operations exceed the recent 5.57 percent growth in gross domestic product ("GDP"), as well as the average ten-year historical growth rate in earnings per share, dividends per share, and book value per share. The Attorney General criticizes the Company's constant growth DCF analysis, arguing that the investors' expectations of the growth in dividends over the next year and over the rest of the investors' holding period are not directly measurable (id. at 53). Further, the Attorney General argues that because the growth rate estimates are from forecasts made by firms that sell stock or mutual funds, the forecasts have an upward bias (id. at 55).

The Attorney General recommends a "reasonable approach" to estimate the growth rate for a constant growth DCF analysis, that accounts for both the expected growth rate of the economy and the long-run historical growth rate in dividends per share and earnings per share (id. at 56). For the comparison group of gas companies, the Attorney general proposes a range of growth rates from two to 5.25 percent. For the comparison group of electric companies, the Attorney General proposes a range of growth rates from 1.8 to 5.25 percent. Using these range of growth rates, the Attorney General's proposed method yields a range of gas ROE from 6.78 to 10.03 percent, and a range of electric ROE from 6.94 to 10.39 percent (id.). The midpoints of the gas and electric ROE ranges are 8.41 percent and 8.67 percent, respectively (id.).

iv. Non-constant Growth DCF - Market Price

The Attorney General suggests that the Department reject the Company's market price DCF model and the resulting ROE estimate altogether (id. at 57). The Attorney General notes

that the Company relied on data from the Value Line for its estimates of investors' expectations (id. at 56-57, citing Exh. FGE SCH-1, Sch. 4, at 3). The Attorney General argues that these forecasts are unrepresentative of the marketplace because they are short-term (five-year values or less), and overinflated as a result of conflicts of interest within the forecasting institutions (id. at 57).

v. Non-constant Growth DCF - Two-Stage

The Attorney General argues that Company's two-stage growth DCF method is "theoretically flawed" (id. at 58). As with Fitchburg's market price model, the Attorney General suggests that the Department reject the analysis and the resulting ROE estimate (id. at 59). Arguing that the 7.17 percent long-run growth estimate for gas distribution companies and the 5.94 percent long-run growth estimate for electric distribution companies are in excess of the expected growth rate of the economy, the Attorney General replaces both figures with a more conservative 5.25 percent long-run growth rate[94] (id. at 57-58). To support his changes to the Company's two-stage growth DCF model, the Attorney General argues that a utility cannot expect continuously to grow faster than the economy as a whole (id. at 58). This proposed correction brings the Company's gas ROE to 9.5 percent and the Company's electric ROE to ten percent (id.).

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[94] The Attorney General calculates his proposed 5.25 percent long-run growth rate by adding a 2.25 percent inflation factor derived from the GDP Chain-Type Price Index to expected real growth in the economy of 3.0 percent (Attorney General Brief at 58; citing Exhs. AG 6-5 (electric); AG 6-23 (electric)).

vi. Risk Premium Analyses

The Attorney General argues that Fitchburg's risk premium analysis is flawed and meaningless for determining the Company's ROE, as are the two comparative risk premium analyses conducted by the Company (id. at 60). The Attorney General contends that the Moody's average public utility bond yield that Fitchburg relies heavily upon is not representative of the Company because most of the electric and gas companies upon which it is based are vertically integrated, and it includes telephone companies (id. at 60, citing Exhs. AG 6-10 (common); AG 8-10 (gas)). The Attorney General argues that the Ibbotson and Harris-Marston studies represent the higher risk associated with the companies in the Standard and Poor's 500 ("S&P") and are more appropriately used to estimate the S&P's ROE rather than Fitchburg's ROE (Attorney General Reply Brief at 40). Therefore, the Attorney General argues that the Department should reject Fitchburg's risk premium analyses (Attorney General Brief at 64).

b. Fitchburg

i. Introduction

The Company states that its 11.5 percent proposed ROE will preserve its financial integrity, enable it to attract capital on favorable terms, and realize earnings on par with investments of comparable risk (Fitchburg Brief at 139-140). Fitchburg argues that any reduction in its proposed ROE will chill the Company's right to earn a fair rate of return (id. at 156).

ii. Comparison Group

Fitchburg argues that its DCF analyses were based on accurate comparison groups and appropriate factors (id. at 146-147). Specifically, the Company argues that it did not individually select comparison companies, but rather used the selection compiled by Value Line and eliminated utilities that did not derive at least 70 percent of revenues from domestic utility operations (id. at 146). The Company states that the Department accepted a similar comparison group in D.T.E. 99-118 on the grounds that the Company "applied a reasonable set of criteria in selecting the comparison group" (id. at 147, citing D.T.E. 99-118, at 80).

iii. Constant Growth DCF Analysis

The Company argues that the Attorney General has supported neither his "technical criticisms" of the Company's DCF analyses, nor his "mechanical extractions of growth data" with expert testimony or record support (id. at 151). Fitchburg argues that implementation of the Attorney General's estimated growth rate range of 1.8 percent to 2.6 percent would drive the Company's ROE estimates below its cost of debt, which would be inconsistent with capital market theory (id.).

iv. Non-constant Growth DCF - Market Price

Fitchburg argues that it altered its market price DCF model to quell the concerns the Department expressed in Fitchburg's last electric rate proceeding, D.T.E. 99-118 (id. at 150). Fitchburg notes that the Department stated that it was "tenuous at best" to assume that

price-to-earnings ("P/E") ratios would remain constant (id., citing D.T.E. 99-118, at 84). Instead of using the current P/E ratio to estimate a future stock price, as it has in the past, the Company used Value Line's estimated future P/E ratios.

v. Non-constant Growth DCF - Two-Stage

Fitchburg offers the two-stage growth DCF approach as an "entirely new" model and presents it as a more conservative alternative to the "transition to competition" model that the Department rejected in D.T.E. 99-118 (id. at 150). The Company argues that this analysis produced the lowest ROE estimates because it used a lower growth rate than current analysts' estimates (id. at 150-151).

vi. Risk Premium Analyses

Fitchburg argues that risk premium analysis is widely used in regulatory practice (id. at 141). The Company states that its recommendation using this model is based on an intermediate period of time that avoids many of the problems associated with very long or very short periods of analysis (id. at 142). Fitchburg argues that it included S&P electric-only data to address the Department's concerns about Moody's bond indices in D.T.E. 99-118, and found a negligible difference of five basis points (id. at 153). Fitchburg concludes that a combination of the DCF models and risk premium data provides the most reliable ROE estimate (id. at 144).

4. Analysis and Findings

a. Unitary Capital Structure

The Attorney General proposes separate ROEs for Fitchburg's gas and electric divisions. The Department has previously addressed this issue. In Fitchburg Gas and Electric Light Company, D.P.U. 1214-D at 4-5 (1985),[95] the Department held that cash is fungible and that it is neither appropriate nor feasible to allocate the Company's capital structure between its electric and gas divisions. The Attorney General provided no basis for abandoning a unitary capital structure, and the Department sees no reason to depart from its precedent.

b. Comparison Group

In our evaluation of the comparison group used by Fitchburg in its DCF analyses, we recognize it is neither necessary nor possible to find a group that matches Fitchburg in every detail. D.T.E. 99-118, at 80. Rather, we may rely on an analysis that employs valid criteria to determine which utilities will be in the comparison group, and that provides sufficient financial and operating data to discern the investment risk of the subject company versus the comparison group. D.T.E. 99-118, at 80; D.P.U. 87-59, at 68. Fitchburg's comparison group includes companies that have operations beyond the scope of gas and electric distribution, which make these companies more risky and, in turn, potentially more profitable. Other factors, such as the comparison group's debt ratios and capital structures, provide an

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[95] This Order was in response to Attorney General v. Dep't of Pub. Util., 392 Mass. 262 (1984), remanding the Department decision in D.P.U. 1214, on appeal by the Attorney General for further findings and reasons on our decision to include specific debt issues in Fitchburg's gas operations.

acceptable basis for evaluating the relative risks of the Company. On balance, the Department finds that Fitchburg is reasonably comparable to the comparison group relied on in this proceeding, but also recognizes that the Company's resulting ROE estimates may be upwardly biased.

c. Constant Growth DCF Analysis

The Department has previously found that a three-month average stock price is not an accurate representation of the financial marketplace, as it is too short a period to represent the current market experience. D.T.E. 98-51, at 121. For these same reasons, the Department again rejects the Company's use of a three-month average stock price to determine the comparison group's dividend yield.

In calculating its growth rate, the Company relied on a projected retained earnings growth rate, as well as three- to five-year earnings growth forecasts from Zack's Investment Research ("Zack's") and Value Line (Exhs. FGE SCH-1 (gas), Sch. SCH-4; FGE SCH-1 (electric), Sch. SCH-4). The results of these analyses are high in comparison to the GDP growth rate and the historic growth rates for earnings per share, dividends per share, and book-value per share (Exhs. AG 8-15 (gas); AG 6-15 (electric)). Moreover, a significant difference exists among the Company's investment forecasts and growth rates in earnings, dividends, and book values as provided in Fitchburg's retained earnings growth rate analysis and data found in Zack's and Value Line. The Department finds that Fitchburg has again overemphasized investment forecasts over other quantitative factors in its ROE calculation. D.T.E. 99-118, at 83. The Department recognizes that a utility cannot expect to consistently

grow faster than the economy as a whole, at least over the long-term. A variety of quantitative factors, including growth in earnings per share, dividends per share, and book value per share, should be taken into consideration when determining an appropriate growth rate. D.P.U. 96-50 (Phase I) at 120; D.P.U. 93-60, at 251; D.P.U. 92-250, at 147.

d. Non-constant Growth DCF - Market Price

Fitchburg's market price DCF model does not contain a growth rate, but instead relies on a projected 2006 stock price to estimate the ROE. This stock price projection assumes a 30 to 33 percent increase in the comparison group's average stock price between 2002 and 2006 and is based on forecasts of the P/E ratio and earnings per share. The Department finds that the Company's reliance on projected P/E ratios and earnings per share to determine future stock prices is speculative, and, therefore, that the results of the Company's market price DCF analysis are unreliable. Additionally, the Department has long recognized the shortcomings of P/E ratios as a basis for determining a utility's cost of capital. D.P.U. 84-135, at 37-38. Accordingly, the Department does not accept the results of the Company's market price DCF model.

e. Non-constant Growth DCF - Two-Stage Growth

As stated above, the Department rejects the use of a three-month stock price to calculate the comparison group’s internal rate of return. The disparity between the projected sub-two percent short-term growth rate and the estimated 7.17 percent gas and 5.94 percent electric long-term growth rates is dramatic and inappropriate for the purposes of ROE estimation. The Department finds that the second-stage growth estimates exceed rational

expectations of growth and, therefore, the model overstates the Company's required ROE. As discussed above, a utility cannot expect to consistently grow faster than the economy as a whole, at least over the long-term. The Company has overemphasized investment forecasts over other quantitative factors in its ROE calculation.

f. Risk Premium Analyses

The Department has repeatedly found that a risk premium analysis overstates the amount of company-specific risk and, therefore, overstates the cost of equity. D.T.E. 98-51, at 126; D.P.U. 90-121, at 171; D.P.U. 88-135/151, at 123-125; D.P.U. 88-67, Phase I at 182-184. The Department has acknowledged the value of risk premium analyses as a supplemental approach to other ROE models but has accorded it, at best, limited weight in our determination of the cost of equity. D.T.E. 99-118, at 86-87. The Moody's and S&P bond yield indices that Fitchburg relied upon include vertically-integrated companies whose operations are not confined to distribution services and are unrepresentative of the Company's risk and its debt component. Similarly, both the Ibbotson and Harris-Marston studies rely on the S&P in their risk-premium calculations and also do not represent Fitchburg's risk. Because these studies are presented for comparative purposes only and because the risk premium analyses suffer from the same limitations previously noted by the Department, we will not rely on their results in determining Fitchburg's ROE.

g. Conclusion

The standard for determining the allowed rate of return on common equity is set forth in Bluefield Water Works and Improvement Company v. Public Service Commission of West Virginia, 262 U.S. 679 (1923) ("Bluefield"); Federal Power Commission v. Hope Natural Gas Company, 320 U.S. 591 (1942) ("Hope"). According to the Bluefield and Hope standards, the Department's allowed return on common equity should preserve the Company's financial integrity, should allow it to attract capital on reasonable terms, and should be comparable to returns on investments of similar risk.

The Company has presented various financial methods such as the DCF and risk premium models in support of its calculation of an appropriate return on equity. These methods include the use of projected growth rates, current and projected interest rates, and financial statistics for Fitchburg and the comparison groups. However, the use of these empirical analyses in this context is not an exact science. A number of judgments are required in conducting a model-based ROE analysis. One looks for substantial evidence on which one may reasonably rely to base a judgment. Each level of judgment to be made contains possibility of inherent bias and other limitations. D.T.E. 01-56, at 117; Western Massachusetts Electric Company, D.P.U. 18731, at 59 (1977).

The record in this proceeding shows that there is a wide range of results produced by the Company and the Attorney General. Because the risk premium model overstates Fitchburg's risk, the Department did not rely on the results of the Company's risk premium analyses. Recognizing the inherent limitations in comparing the Company to publicly traded

companies, the Department granted the DCF comparison group appropriate probative weight. We have rejected Fitchburg's market price DCF model as speculative. We have also taken into account the inflated growth rates used in Fitchburg's constant growth and two-stage growth DCF models and, while not rejecting these models per se, have found that the results are inflated. Therefore, while the results of analytical models are useful, the Department must ultimately apply its own judgment to the evidence to determine an appropriate rate of return. We must apply to the record evidence and argument considerable judgment and agency expertise to determine the appropriate use of the empirical results. Our task is not a mechanical or model-driven exercise. D.T.E. 01-56, at 118; D.P.U. 18731, at 59; see also Boston Edison Company v. Dep't of Pub. Utils., 375 Mass. 1, 15 (1978).

Based on a review of the evidence presented in this case, the arguments of the parties, and the considerations set forth above, the Department finds that an allowed rate of return on common equity of 10.0 percent is within a reasonable range of rates that will preserve Fitchburg's financial integrity, allow it to attract capital on reasonable terms, will be comparable to earnings of companies of similar risk and is appropriate in this case. In making these findings, we have considered both qualitative and quantitative aspects of the Company's various methods for determining its proposed rate of return on equity, as well as the arguments of the parties in this proceeding. We recognize that investors' expectations of the return on their investments are significantly affected by the state of the economy as a whole, and that these expectations are much lower than they were in the Company's last two rate investigations. In future electric company rate cases, the Department may explore whether

distribution companies have reduced risk after restructuring, resulting from exiting the electric generation business.

The record in this proceeding also demonstrates subpar management performance in terms of regulatory support, with particular respect to Fitchburg's failure to provide the Department with complete information regarding a number of issues that have the potential to affect ratepayers (see Sections III(B), III(E), and V(R), above regarding the Princeton Paper Settlement, the O&M lead-lag study, and Enermetrix). These instances require that the return on equity should be set at the low end of the range of reasonableness. D.P.U. 92-250, at 161-162; cf. D.P.U. 92-78, at 115 (quality of service warranted return at high end of range).

VII. RATE DESIGN

A. Embedded Cost of Service Study

The Company performed an allocated embedded cost of service study ("COSS") for its gas division as a basis to assign or allocate costs to customer rate classes, and filed four separate COSS results (Exhs. FGE JLH-1, at 14-30 (gas); FGE JLH-1 (gas), Sch. JLH-5). The first study showed the actual rate of return for each rate class based on present rates, and the proposed increase in the revenue requirement that generates equal rates of return for all rate classes (Exhs. FGE JLH-1, at 15 (gas); FGE JLH-1 (gas), Sch. JLH-5-1). The second study, where gas supply costs have been removed, showed the costs and revenues to be recovered from base distribution rates (Exhs. FGE JLH-1, at 15 (gas); FGE JLH-1 (gas),

Sch. JLH-5-2). The third study summarized each rate class' unbundled functional costs to serve (Exhs. FGE JLH-1, at 15 (gas); FGE JLH-1 (gas), Sch. JLH-5-3). The fourth study presented Fitchburg's detailed revenue requirements, in which functionalized costs were sub-totaled into the production and distribution functions (Exhs. FGE JLH-1, at 15 (gas); FGE JLH-1 (gas), Sch. JLH-5-4). Based on its proposed rate of return, the Company also filed two additional COSS results (1) where only base distribution rates are shown while all cost items relating to the CGAC and the local distribution adjustment clause ("LDAC") were excluded (Exh. AG 7-11), and (2) where only gas cost-related items are shown while all items relating to base distribution rates and the LDAC were excluded (Exh. AG 7-12).[96]

The Company states that the cost to serve utility customers consists generally of operating expenses and rate of return (Exh. FGE JLH-1, at 14 (gas)). The Company adds that although the overall costs for a utility may be readily established based on an historical test period, the costs to serve customers of various rate classes are less apparent because costs can vary significantly between customer classes depending upon the nature of their demands upon the facilities required to serve them (id.). The Company states that, through the application of a cost model developed for Fitchburg by MAC, it was possible to treat, in detail, each element of rate base, revenue, and operating expenses and allocate them to customer rate classes (id. at 15). No party commented on the Company's proposed gas COSS.

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[96] Fitchburg listed four changes in the allocators used in its COSS compared to the compliance COSS approved D.T.E. 01-56 (Exh. DTE 7-15). The Company argues that the changes are "minor improvements," adding that "[a]ll of the allocators in the Company's COSS were methodologically and conceptually similar" to the study filed and approved in D.T.E. 01-56 (Exh. DTE 7-15; Tr. 5, at 573-580).

For Fitchburg's electric division, the Company filed proposed allocated COSS as a basis for assigning costs to customer rate classes (Exhs. FGE JLH-1, at 4-5 (electric); FGE JLH-1 (electric), Schs. JLH-2-1, JLH-2-2). Fitchburg filed two allocated COSS. Each COSS allocated costs to determine the rate of return at present rates and to provide equalized rates of return for all rate classes equal to the rate of return proposed by the Company (Exh. FGE JLH-1, at 23 (electric)). One COSS allocated costs by rate class while the other allocated costs by function (Exh. FGE JLH-1, at 5 (electric)).

The Department has evaluated the Company's proposed COSS for both the gas and electric divisions and finds that they are consistent with Department precedent for cost allocation.[97] D.T.E. 01-56, at 138; D.P.U. 96-50 (Phase I) at 136. The Department directs the Company, in its compliance filing, to re-run its COSS to allocate costs and expenses consistent with this Order.

B. Separation of Distribution and Internal Transmission

Fitchburg owns distribution plant as well as transmission plant. The cost to run its transmission system is recovered through rates approved by the Federal Energy Regulatory

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[97] The Department notes that the Company provided COSS that contained no citations or notes referencing the reader to the source(s) of the inputs (Exhs. FGE JLH-1 (gas), Schs. JLH-5-1, JLH-5-2, JLH-5-3, JLH-5-4; FGE JLH-1 (electric), Schs. JLH-2-1, JLH-2-2). Such filings are not helpful and may, in the future, justify summary rejection of a rate filing based upon support so difficult to assess. Providing a study with thousands of numbers, without references, only serves to prolong the discovery phase of the proceeding and promote needless strife during the short six-month interval permitted by G.L. c. 25, § 18. The Company must ensure that, when it files another COSS with the Department, it will be complete with notes describing calculations and cites for the inputs to the model, where appropriate.

Commission ("FERC") (Tr. 7, at 781-782). As a result of the restructuring of the electric industry, Fitchburg was required to unbundle its transmission and distribution rates. G.L. c. 164, § 1A(b)(1). The retail rates that Fitchburg now charges its retail customers for providing transmission service are recovered through an internal transmission charge and an external transmission charge (Tr. 7, at 784-785). The internal transmission charge recovers the Company's costs to run its transmission plant (id. at 785). The external transmission charge recovers all the Company's external transmission costs that are billed to the electric division by any other transmission provider or other regional transmission entities, such as the New England power pool (id. at 784).

In order to determine the distribution revenue requirement, the Company first determined the cost of the distribution and internal transmission bundled together (Exh. FGE MHC-1 (electric), Sch. MHC-2, at 81). Using its functional COSS, the Company then unbundled the distribution costs from the internal transmission costs (Exh. FGE JLH-1 (electric), Sch. JLH-2-2, at 76-105). It is difficult for the Department to determine if all internal transmission costs have been removed from the distribution cost of service because (1) the Company books transmission expenses with distribution expenses, and (2) some of the allocators used in this proceeding to unbundle the distribution from transmission are inconsistent with the allocators used by FERC to establish transmission rates (Tr. 4, at 472-474; Tr. 7, at 789-790).

However, because the allocators proposed by the Company in its functional COSS are consistent with Department precedent, we approve the method proposed by the Company for

the purpose of establishing base rates in this proceeding. D.T.E. 01-56, at 128; D.T.E. 98-51, at 135; Essex County Gas Company, D.P.U. 96-70, at 3-4 (1996); Bay State Gas Company, D.P.U. 95-104, at 18-19 (1995). The Department directs the Company, in its compliance filing, to re-run its functional COSS to allocate costs and expenses consistent with this Order.

The Restructuring Act requires electric companies to transfer or separate ownership of transmission plant from distribution plant. G.L. c. 164, § 1A(b)(1). The Department is not convinced that the Company's treatment of its transmission plant is consistent with G.L. c. 164, § 1A.[98] Therefore, the Department will investigate in a separate proceeding whether the Company's treatment of its transmission plant is consistent with G.L. c. 164, § 1A.

C. Marginal Cost Study

1. Introduction

The Company filed a marginal cost of service study ("MCS") for both its gas and electric divisions that included analyses of the estimated increased costs that each division would incur if it expanded its services through the addition of customers, increased sales, or the addition of capacity (Exhs. FGE JLH-1, at 31-33 (gas); FGE JLH-1, at 11-13 (electric)). According to the Company, the use of the MCS in setting rates results in a level and pattern of

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[98] This issue does not arise with Massachusetts Electric Company and Boston Edison Company because they both have separated out their transmission facilities to an independent affiliate. Boston Edison Company, D.P.U. 96-23, at 44 (1998); Massachusetts Electric Company/Nantucket Electric Company, D.P.U. 96-25, at 29 (1997).

prices that promotes appropriate consumption decisions as well as an efficient allocation of societal resources (Exhs. FGE JLH-1, at 31 (gas); FGE JLH-1, at 11-12 (electric)).

Fitchburg states that it prepared the MCS for its gas division using the same methods as approved by the Department in D.T.E. 01-56. The gas division MCS includes the calculation of the following components: (1) marginal commodity costs; (2) marginal production capacity costs; (3) marginal distribution costs; and (4) marginal customer costs (Exh. FGE JLH-1, at 31-32 (gas)). The electric division MCS includes the calculation of the following components: (1) marginal transmission and distribution costs; and (2) marginal customer costs (Exh. FGE JLH-1, at 12 (electric)).[99]

2. Gas Division Marginal Cost Study

a. Marginal Distribution Capacity Costs

According to the Company, the marginal distribution capacity cost is intended to account for the unitized cost, based on historical data and recent trends, of expanding the local distribution network to accommodate growth in customers' requirements (Exh. FGE JLH-1, at 31-32 (gas)). Marginal distribution capacity costs were computed for (1) the long-run marginal costs of expanding the existing gas distribution system, and (2) the long-run marginal costs of adding main extensions (Exh. FGE JLH-1, at 37 (gas)).

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[99] The marginal commodity costs, marginal production capacity costs and marginal transmission costs are not used for the purpose of designing base rates and serve no purpose for this proceeding. Therefore, the Department will not address the results of these studies.

Fitchburg used three approaches to determine the marginal cost of expanding the existing gas distribution system; a primary approach, and two alternative approaches to verify the reasonableness of the primary approach (Exh. FGE JLH-1, at 37 (gas)). The Company's primary method, "prospective additions," developed an estimate of the anticipated unit cost of additional main extensions by employing thirteen years of historical main extension footage, and load and cost data (Exhs. FGE JLH-1, at 37 (gas); FGE JLH-1 (gas), Sch. JLH-6, at 293-297). Fitchburg's secondary and tertiary methods were "historical investment" averaging and "statistical regression," respectively (Exh. FGE JLH-1, at 37-38 (gas)). The Company proposes to use the primary method because it is based on the engineering principles that control the Company's planning decisions.[100] The primary method determined a total marginal distribution cost of $463.23 per design day decatherm (Exh. FGE JLH-1 (gas), Sch. JLH-6, at 293).

b. Marginal Customer Costs

The marginal costs of serving an additional customer are a function of the size of the customer and the class of service (Exh. FGE JLH-1, at 42 (gas)). The Company's marginal customer costs consist of (1) plant investment in services and meters, (2) related operations and maintenance expenses, and (3) billing costs such as customer accounting and customer information expenses (id.).

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[100] In addition, the Company argues that the similar results of the alternative estimation methods add credence to the estimate selected (Exh. FGE JLH-1, at 38 (gas)).

Fitchburg computed the customer-related plant investment by using current engineering estimates to compute the average replacement costs for each customer class (Exhs. FGE JLH-1, at 42 (gas); FGE JLH-1 (gas), Sch. JLH-6, at 298). Through the use of the long-run average cost, the Company computed the customer-related operations and maintenance incremental expense (Exhs. FGE JLH-1, at 43 (gas); FGE JLH-1 (gas), Sch. JLH-6, at 307-11). The costs to customer classes were then based on the services and meters required (Exhs. FGE JLH-1, at 43 (gas); FGE JLH-1 (gas), Sch. JLH-6, at 308).

The Company computed the marginal customer accounting and marketing expense by averaging the costs from the last five years (Exhs. FGE JLH-1, at 43 (gas); FGE JLH-1 (gas), Sch. JLH-6, at 309). These costs are also weighted for class structure (Exhs. FGE JLH-1, at 43 (gas); FGE JLH-1 (gas), Sch. JLH-6, at 310).

3. Electric Division Marginal Cost Study

a. Marginal Distribution Costs

The Company calculated the incremental cost of expanding the local distribution network to accommodate growth in customers' requirements on a rate class basis using regression and other statistical techniques and engineering estimates (Exh. FGE JLH-1, at 12 (electric)). The Company included the cost of adding distribution plant facilities as well as the related additional costs for operations and maintenance expenses (id.).

The Company stated that, for ease of measurement, coincident peak demand also was employed in the calculation of long-run marginal distribution capacity costs (Exhs. FGE

JLH-1, at 16 (electric); FGE JLH-1 (electric), Sch. JLH-3, at 109). The Company considered both primary and secondary voltage levels in determining the needed investment in capacity expansion because many large customers take service at the primary voltage level and do not benefit from the existence of secondary lines (Exhs. FGE JLH-1, at 16 (electric); FGE JLH-1 (electric), Sch. JLH-3, 111). The Company adjusted historical capacity-related additions data with the Handy-Whitman Index to restate investment figures in 2001 dollars (Exhs. FGE JLH-1, at 16 (electric); FGE JLH-1 (electric), Sch. JLH-3, 110). Because the regression results were not sufficiently robust, the Company relied on long-run average cost as the long-run marginal cost estimate (Exhs. FGE JLH-1 (electric), Sch. JLH-3, at 111, n.5; DTE 2-80).

The Company determined the capacity-related component of marginal distribution operations and maintenance expenses using the average cost over the past three years, again because the regression analyses were unsatisfactory (Exhs. FGE JLH-1, at 17 (electric); FGE JLH-1 (electric), Sch. JLH-3, at 115-120). The Company segregated distribution operation and maintenance costs between capacity and customer cost components and further divided capacity costs between primary costs, common to all distribution customers, and secondary costs which are assigned to secondary voltage customers only (Exhs. FGE JLH-1, at 17 (electric); FGE JLH-1 (electric), Sch. JLH-3, at 117-120).

Fitchburg developed the marginal capacity costs for distribution by aggregating plant investments in distribution to include general plant (Exh. FGE JLH-1, at 17 (electric)). Then, the Company annualized these investments by applying the fixed charge rate developed for this

analysis,[101] adding annual operating expenses and an allowance for working capital (Exhs. FGE JLH-1, at 17 (electric); FGE JLH-1 (electric), Sch. JLH-3, at 126-141). Finally, the unit costs were adjusted to incorporate unaccounted for losses and were adjusted upward from test year to rate year levels (Exhs. FGE JLH-1, at 17 (electric); FGE JLH-1 (electric), Sch. JLH-3, at 139-141).

b. Marginal Customer Costs

The Company stated that the marginal costs of serving an additional customer are a function of the size of the customer and the class of service (Exh. FGE JLH-1, at 18 (electric)). The Company's electric division marginal customer costs consist of the following: (1) plant investment in services and meters; (2) related operation and maintenance expenses; and (3) billing costs, such as customer accounting and customer information expenses (Exhs. FGE JLH-1, at 18 (electric); FGE JLH-1 (electric), Sch. JLH-3, at 113,121-125,143).

Fitchburg computed the customer-related plant investment by estimating the average replacement costs for each customer class and factoring the replacement costs by the services per customer ratio (Exhs. FGE JLH-1, at 18 (electric); FGE JLH-1 (electric), Sch. JLH-3, at 113). Fitchburg also developed the meter investment amount by using current engineering estimates of meter and installation costs and factored the cost of installed meters by a meters per customer ratio to recognize the existence of inactive meters and the need for spares

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[101] The Company developed "levelized fixed charged" rates, which are used to convert one time plant investments into annualized revenue requirements for peaking production facilities, capacity-related distribution plant and customer-related distribution plant (Exhs. FGE JLH-1, at 20 (electric); FGE JLH-1 (electric), Sch. JLH-3, at 126-138).

(Exhs. FGE JLH-1, at 18 (electric); FGE JLH-1 (electric), Sch. JLH-3, at 113).

The Company used the three-year average cost figure, restated in current dollars, as an estimate of the marginal cost of the service and meter-related customer operation and maintenance expenses for each customer class, because of poor regression results (Exhs. FGE JLH-1, at 18-19 (electric); FGE JLH-1 (electric), Sch. JLH-3, at 123-124).

In addition, Fitchburg used the trended, average cost-per-customer figure, restated in current dollars, as an estimate of the marginal cost of billing expenses such as the customer accounting and customer information costs for each customer class (Exhs. FGE JLH-1, at 19 (electric); FGE JLH-1 (electric), Sch. JLH-3, at 121-125). The Company also developed loading factors, which were used to compute estimates of marginal costs where, according to the Company, direct quantification is either too complex or the costs are insignificant (Exhs. FGE JLH-1, at 20 (electric); FGE JLH-1 (electric), Sch. JLH-3, at 127-128).

The Company developed customer-related marginal costs by converting plant investments to annual expenses using the appropriate fixed charged rates and adding previously calculated annual operation and maintenance expenses, loaders, and working capital requirements adjusted for rate year dollars (Exhs. FGE JLH-1, at 19-20 (electric); FGE JLH-1 (electric), Sch. JLH-3, at 143). Finally, Fitchburg aggregated figures for marginal capacity costs for distribution and marginal customer costs to obtain the long-run marginal cost of service per unit and to calculate the marginal cost-based revenue requirement (Exhs. FGE JLH-1, at 22 (electric); FGE JLH-1 (electric), Sch. JLH-3, at 144-147).

4. Positions of the Parties

a. Attorney General

The Attorney General argues that the Company's MCS for both gas and electric divisions are flawed and do not produce reliable estimates of marginal costs (Attorney General Brief at 71). The Attorney General criticizes the Company's use of "smoothed data" for both the gas and electric MCS (Attorney General Brief at 71-72). The Attorney General also argues that the Company used data inconsistently (e.g., in estimating the marginal cost of gas investment as a function of degree day, Fitchburg sometimes used regression coefficients that "differed dramatically from actual investment over time compared to load growth") (Attorney General Brief at 71). Therefore, the Attorney General contends that, due to a lack of consistency and accuracy, the MCS are unreliable and the Department should reject both the gas and electric divisions' MCS (Attorney General Brief at 71).

b. DOER

DOER acknowledges the Attorney General's concerns that the MCS may be flawed in some respects; however, it maintains that the studies are not so flawed as to prohibit their use for rate design purposes (DOER Reply Brief at 3). Therefore, DOER asserts that Fitchburg's base rates for both its electric and gas division should be based on its MCS (id.).

c. Fitchburg

The Company argues that, while it encountered difficulties in preparing the MCS, those difficulties do not invalidate the results of the studies. The Company argues that the MCS should not be void from an evidentiary standpoint because the Department applies a "weight of

the evidence" standard to all the evidence it reviews (Fitchburg Brief at 120-121). Further, the Company claims that the fact that it employed the judgment of its expert witness should be expected because MCS inherently rely on expert judgment in a more direct manner than do cost of service studies (Fitchburg Brief at 121). Finally, the Company notes that the Attorney General provides no support for his claim that the Company should have made use of some alternative escalation rate rather than a Handy-Whitman Index (Fitchburg Brief at 121).

5. Analysis and Findings

The Department has evaluated the Company's proposed MCS and finds that it is calculated consistent with Department precedent. D.T.E. 01-56, at 122; D.P.U. 96-50 (Phase I) at 150-152; D.P.U. 93-30, at 368-376 (1993). Therefore, the Department will accept the Company's MCS. We note, however, that for future MCS, there are improvements that must be made to yield more reviewable and dependable results. The modifications discussed below apply to both gas and electric MCS.

First and foremost, the Company must substantially improve its econometric analysis in terms of data included, the techniques employed, and standards used to evaluate the success of relevant statistical analysis. The Company's time series data were limited to thirteen years; but given the history of Fitchburg's operations, this period can easily be lengthened. For the purpose of improving future calculations, all historical (time series) data sets used in preparing the marginal cost studies must be no less than 30 years in length in order to improve the accuracy of the econometric analyses. In addition, appropriate tests and remedial procedures

for multicollinearity, heteroscedasticity, and autocorrelation must be performed and presented with the MCS to enable the Department to evaluate the results of the study.

Second, the Company must use multiple variable regression equations as opposed to single variable equations where the (historical) investment variable is regressed against the total customer load (demand) without differentiating among customer classes.[102] Customer class-specific demand and other variables of importance can be used in determining distribution plant marginal cost.[103] Further, we note that alternative functional forms of regression equations must be tested and presented so that some of the poor performing regression runs can be avoided. Multiplicative (logarithmic) functional forms may prove to be superior to linear specifications especially in calculating marginal distribution plant costs where the cost to serve residential and commercial customer classes is non-separable (i.e., classes have joint costs).[104] Additionally, all regressions of multiplicative (logarithmic) forms must have an intercept term because it determines the final marginal cost estimate.

Third, an analysis must be performed to check the theoretical consistency of the marginal cost model being used. The shape and the location of the marginal cost curve must be determined to provide this consistency as well as an assessment of whether the distribution

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[102] Investment data based on replacement costs must be used when available.

[103] For example, population density is considered to be an important explanatory variable in measuring gas and electric distribution costs where costs per unit of customer served is substantially lower in densely populated areas. The number of customers for each class can also be used as an independent variable for estimating marginal plant costs.

[104] In contrast, the coefficients of linear forms represent separate marginal costs of service for respective customer classes.

costs exhibit increasing, constant, or decreasing returns to scale. Use of logarithmic regression functions are helpful in indicating the economies or dis-economies of scale that distribution plant may exhibit. In its next rate case, the Company must provide a MCS consistent with the aforementioned modifications. Our observations about the desired features of an MCS have, of course, applicability to gas and electric companies that is broader than Fitchburg's next rate case.

D. Market Based Allocation of Gas Costs

1. Introduction

The Company proposes to use the market based allocation ("MBA") method to allocate gas production costs and to calculate seasonal gas costs by load factors in the Company's CGAC (Exh. FGE JLH-1, at 9-10 (gas)). The Company's proposal incorporates one change to the MBA method approved by the Department in D.T.E. 98-51. There, Fitchburg allocated remaining demand costs to a given month using a proportional responsibility ("PR") allocator and then to classes based on send-out in that month (id. at 12-13). The Company proposes instead to use a design day allocator to assign these costs to classes and then the PR method to assign costs to months (id. at 13 (gas)). The Company states that the use of a design day allocator is necessary to maintain consistent cost allocation practice between gas cost recovery via the CGAC and the mandatory capacity method approved by the Department in Gas Unbundling, D.T.E. 98-32-B (1999) (id.).

The Company states that the MBA method identifies and separately assigns costs to the high load factor and low load factor blocks of the system's load duration curve (id. at 10-11).

The MBA method defines the "base load" portion of the system load curve as the level of system load that remains constant throughout the year and can be served at extremely high annual load factors (id.).[105] The portion of the system load curve remaining after base use is the "remaining load" (id. at 11).

The MBA method identifies the least-cost supplies to serve the requirement of the high load factor "base use" block of the system load and assigns those costs, on average, to the loads of the individual customer classes associated with the base load (id. at 10-11). The commodity costs of the remaining load are allocated to customer classes in proportion to their remaining use while capacity costs are allocated to rate classes on the basis of their design day demand less that portion of their class load served by base use supplies (id. at 12).

2. Positions of the Parties

a. Attorney General

The Attorney General argues that the Company's proposed modification to the MBA method should be rejected because the application of a design day allocator would mark a departure from the principle of cost causation, would not simulate competitive market portfolio structures and methods, and may render the CGAC unreviewable (Attorney General Reply Brief at 43). The Attorney General argues that the use of design day to allocate the remaining capacity costs is inappropriate because the Company does not select its portfolio of gas supply resources based solely on its design day, nor is Fitchburg's acquisition policy driven by the

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[105] The Company states that, in practice, the level of capacity in the base load block is computed as the average of normal year firm sendout over the months of July and August (Exh. FGE JLH-1, at 11 (gas)).

need to meet a design day peak (Attorney General Brief at 66). Rather, the Attorney General contends that the Company's decisions about acquiring gas are designed to minimize the cost of a reliable supply during normal weather (id.). The Attorney General maintains that the Company's current CGAC method better accounts for when gas is actually used by the various classes because it employs proportional responsibility allocators to assign all costs above base costs (id.).

In addition, the Attorney General argues that while allocating remaining demand costs on the basis of design day peak is intended to mimic capacity assignment to migrating customers, the Company's proposed modification does not prevent migration from affecting other customers because the design day peak calculation for capacity release is different from the design day calculation for the class (id. at 68-69). According to the Attorney General, the computation for a migrating customer relies on daily load data while the CGAC class allocation is based on monthly data (id. at 69). Further, the Attorney General maintains that because the released capacity may be used to transport, buy and store different amounts of gas than the customers had been paying for through the CGAC, simply allocating remaining capacity costs with a class design day estimate does not result in a CGAC that "will prevent migration or necessarily treat other customers fairly with regard to all costs" (id.).

The Attorney General also raises concerns regarding the actual implementation of the CGAC if the Company's proposal is allowed. The Attorney General argues that the computation of the design day allocator in each CGAC would be so complicated as to render future CGAC filings "less transparent and reviewable" (id. at 70). The Attorney General

further contends that because the CGAC tariff lacks any specific formulas for how capacity is assigned and is only intended to be a general guideline for how the calculations are performed, the introduction of the design day allocator would involve the exercise of too much judgment in estimating the design day (id.).

Finally, the Attorney General contends that the computation of the design day allocator in the CGAC would be based on data differing from what was employed in this proceeding (id. at 70-71). The Attorney General claims that while this proceeding examined twelve months of data with smoothed peaks, capacity assignment itself would use 18 months of data and actual peaks (id. at 71).

b. Fitchburg

The Company argues that its design day method matches the method used to assign capacity to both marketers and suppliers and is fully appropriate for use in an unbundled environment (Fitchburg Reply Brief at 25). The Company further argues that the effect on firm sales customers of the gas division is minimized by matching the CGAC and assignment method (id.).

The Company rejects the Attorney General's support of the PR method for allocating remaining supply capacity costs and argues that the PR method runs against established Department precedent (Fitchburg Brief at 108). The Company notes that the Department approved a change from a PR allocator to a design day allocation for capacity cost assignment in D.T.E. 01-56 (id. at 108-109). The Company contends that its design day allocator meets

the Department's stated goal that capacity assignment procedures should protect sales customers from gas price changes due to migration (id. at 109).

The Company rejects the Attorney General's claims that the design day allocation used for the CGAC differs from the allocation used for capacity assignment (id. at 110). The Company states that, in the compliance phase in this docket and future CGAC filings, the Company will use the same calculations for design day that will be used for its annual capacity assignment filing as required by its Terms and Conditions tariff (id.).

Finally, the Company concludes that the Attorney General confuses two different capacity assignment calculations (1) the development of class percentages for pipeline, storage and peaking resources, and (2) the determination of the customer's individual load (id.). The Company argues there is no inconsistency in its proposal because the class design day demand calculations will be the same for the CGAC and the capacity assignment (id.).

3. Analysis and Findings

The Department has approved the MBA method for assigning gas costs to customer classes. See D.T.E. 98-51, at 135; D.P.U. 96-70, at 3-4, 7; D.P.U. 95-104, at 18-19. The Company's proposed adjustment to the MBA method is identical to the method approved by the Department for use by Berkshire in D.T.E. 01-56, at 128.

The Attorney General does not contest the use of the MBA method as a way of allocating gas costs, but takes issue with the Company's modification to the MBA method, which allocates the remaining capacity costs -- about fifteen percent of the total test year gas costs -- to rate classes based on a design day allocator. The Attorney General argues that the

remaining capacity costs should be allocated based on a PR allocator because it better accounts for when gas is actually used by the various classes.

A fundamental objective of cost allocation is to ensure that cost responsibility is based on cost causation. D.P.U. 96-50 (Phase I) at 133; D.P.U. 92-250, at 178; Western Massachusetts Electric Company, D.P.U. 91-290, at 24 (1992). In order to identify properly each class' responsibility for the capacity costs, it is appropriate to consider the factors that influence a local distribution company's incurrence of these costs. For this reason, the Department concludes that an appropriate allocator for capacity-related costs should account for customer usage factors as well as system design considerations.

The Company's MBA method allocates capacity costs based on usage as well as design day considerations (Exhs. FGE JLH-1, at 10-13 (gas); FGE JLH-1 (gas), Sch. JLH-4). In this way, the MBA method accounts for the fact that the Company incurs these costs to meet the design day requirements of its customers, but also usage throughout the year. The Company's proposed modification properly assigns a portion of Fitchburg's capacity costs based on a design day allocator because design day considerations result in the Company incurring such costs. In turn, these costs are incurred because the Department requires that a company's supply plan is adequate to meet projected normal-year, design-year, design-day, and cold-snap firm sendout requirements. See Fitchburg Gas and Electric Light Company, D.T.E. 00-42, at 14 (2001); Blackstone Gas Company, D.T.E. 00-81 (2001); Bay State Gas Company, D.T.E. 98-86 (2000); Commonwealth Gas Company, D.P.U. 96-117 (2000). Therefore, it is not appropriate to allocate all capacity costs based solely on usage, as the Attorney General

would have us do, because usage is not the only criterion that causes capacity costs to be incurred. Accordingly, the Department finds that the adjustment to the MBA method proposed by the Company achieves a more reasonable balance between usage characteristics and design day considerations. The Department further finds that the adjustment is appropriate because it more accurately matches cost responsibility with cost causation. Therefore, the Department approves the modification. Further, Fitchburg's proposed modification is consistent with our mandatory capacity assignment method for customers migrating to transportation service, which was approved by the Department in D.T.E. 98-32-B.

Turning to the Attorney General's argument that the design day calculations for capacity assignment are different from those used in the CGAC, the Department notes that Fitchburg committed to using the same design day calculations in its CGAC that are currently employed in its capacity assignment calculations (Fitchburg Brief at 110). The Department directs the Company to apply the same design day calculation that will be used in its annual capacity assignment filing to both the compliance phase in this docket and future CGAC filings.[106]

Finally, the Department does not share the Attorney General's assessment that the CGAC will become burdensome and unreviewable if we incorporate the proposed change. As

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[106] There is one minor distinction between the design day calculation for CGAC purposes and the design day calculation for capacity assignment purposes: capacity assignment calculations are based on total load, including firm sales and non-grandfathered firm transportation customers. The CGAC applies only to firm sales customers. Therefore, the design day calculation for the CGAC will only include firm sales customers. We direct the Company to document this distinction in its calculations.

we discuss in Section VII(G)(2)(c), below, the Company is directed to provide in all of its CGAC filings, detailed information as to the calculation of its load factor-based GAFs, including a step-by-step description of the MBA method.

E. Gas Rate Structure

1. Rate Structure Goals

a. Introduction

Rate structure is the level and pattern of prices charged to customers for their use of utility service. The rate structure for each rate class is a function of the cost of serving that rate class and the design of the rates such that the cost to serve that rate class is recovered.

The Department has determined that utility rate structures must be efficient, simple, and ensure continuity of rates, fairness between rate classes, and corporate earnings stability. D.T.E. 01-56, at 134; D.T.E. 01-50, at 28; D.P.U. 96-50 (Phase I) at 133. Efficiency means that the rate structure should allow a company to recover the cost of providing the service and should provide an accurate basis for consumers' decisions about how to best fulfill their needs. The lowest-cost method of fulfilling consumers' needs should also be the lowest-cost means for society as a whole. Thus, efficiency in rate structure means that it is cost-based, and recovers the cost to society of the consumption of resources to produce the utility service. D.T.E. 01-56, at 135.

The Department has determined that a rate structure achieves the goal of simplicity if it is easily understood by consumers. Rate continuity means that changes to rate structure should be gradual to allow consumers to adjust their consumption patterns in response to a change in

structure. Fairness means that no class of consumers should pay more than the costs of serving that class. Earnings stability means that the amount a company earns from its rates should not vary significantly over a period of one or two years. D.T.E. 01-56, at 135.

There are two steps in determining rate structure: cost allocation and rate design. The cost allocation step assigns a portion of the company's total costs to each rate class in a COSS. The COSS represents the cost of serving each class at equalized rates of return given the company's level of total costs. D.T.E. 01-56, at 135; D.T.E. 01-50, at 29; D.P.U. 96-50 (Phase I) at 133.

There are four steps to develop a COSS. The first step is to functionalize costs. In this step, costs are defined as being associated with the production, storage, or the transmission and distribution function of providing service. The second step is to classify expenses in each functional category according to the factors underlying their causation. Thus, the expenses are classified as demand-, energy-, or customer-related. The third step is to identify an allocator that is most appropriate for costs in each classification within each function. D.T.E. 01-56, at 136; D.T.E. 98-51, at 132; D.P.U. 96-50 (Phase I) at 133-134. The fourth step is to allocate all of a company's costs to each rate class based upon the cost groupings and allocators chosen, and to sum these allocations in order to determine the total costs of serving each rate class.

The results of the COSS are compared to the revenues collected in the test year. If these amounts are close, then the revenue increase or decrease may be allocated among the rate classes so as to equalize the rates of the return and ensure that each rate class pays the cost of

serving it. If, however, the differences between the allocated costs and the test-year revenues are great, then, for reasons of continuity, the revenue increase or decrease may be allocated so as to reduce the difference in rates of return, but not to equalize them in a single step. See D.T.E. 01-56, at 135; D.T.E. 01-50, at 29.

As the previous discussion indicates, the Department does not determine rates based solely on costs, but also explicitly considers the effect of its rate structure decisions on customers' bills. For instance, the pace at which fully cost-based rates are implemented depends in part on the effect of the changes on customers. The Department has ordered the establishment of special subsidized rate classes for certain low-income customers. In moving toward our goal of efficiency, the Department also considers the effect of such rates on low-income customers. D.T.E. 01-56, at 136; D.T.E. 01-50, at 29-30.

In order to reach fair decisions that encourage efficient utility and consumer actions, the Department's rate structure goals must balance the often divergent interests of various customer classes and prevent any class from subsidizing another unless a clear record exists to support -- or statute requires, G.L. c. 164, § 1F(4)(i) -- such subsidies. The Department reaffirms its rate structure goals that result in rates that are fair and cost-based and enable customers to adjust to changes. D.T.E. 01-56, at 136-137; D.T.E. 01-50, at 30.

The second step in determining the rate structure is rate design. The level of the revenues to be generated by a given rate structure is governed by the cost allocated to each rate class in the cost allocation process. The pattern of prices in the rate structure, which produces the given level of revenues, is a function of the rate design. The rate design for a given rate

class is constrained by the requirement that it should produce sufficient revenues to cover the cost of serving the given rate class and, to the extent possible, meet the Department's rate structure goals discussed above. D.T.E. 01-56, at 136; D.T.E. 01-50, at 30.

b. Interclass Revenue Requirement Allocation

i. Fitchburg Proposal

A comparison of present the gas division's base revenues with the Company's COSS shows significant differences, especially in the case of the residential non-heating classes (Exhs. FGE JLH-1, at 49 (gas); FGE JLH-1 (gas), Sch. JLH-7, at 341). At equalized rates of return, all of the commercial and industrial ("C&I") rate classes except rate G-41 would receive, on average, a rate change significantly below the Company-average rate increase (Exh. FGE JLH-1 (gas), Sch. JLH-7, at 340). Thus, the Company stated that it was concerned that its COSS demonstrated interclass subsidization. To address this interclass subsidization, the Company proposes to develop class revenue requirements in such a way that no class received an increase greater than 125 percent of the system average increase requested by the Company, or 19.6 percent (125 percent of 15.7 percent) (Exhs. FGE JLH-1, at 49 (gas); FGE JLH-1 (gas), Sch. JLH-7, at 340). The Company also eliminated any rate class decreases (Exhs. FGE JLH-1, at 49 (gas); FGE JLH-1 (gas), Sch. JLH-7, at 340). The remaining revenue increase requested by the Company was then allocated to those classes with a revenue requirement below the 125 percent rate cap on a pro rata basis based on current revenues

(Exh. FGE JLH-1, at 49 (gas)).[107]

ii. Analysis and Findings

The Department's long-standing policy regarding the allocation of class revenue requirements is that a company's total distribution costs should be allocated on the basis of equalized rates of return. See D.T.E. 01-56, at 139; D.P.U. 92-210, at 214; D.P.U. 92-250, at 194. This allocation method satisfies the Department's rate structure goal of fairness. However, we must balance our goal of fairness with our goal of continuity. To do this, we have reviewed the changes in total revenue requirements by rate class and the annual and seasonal bill impacts by consumption level within rate classes. The Department finds that continuity considerations do not allow us to move to fully equalized rates of return without substantial rate increases to rates R-1, R-2, R-3, R-4, and G-41 (Exh. FGE JLH-1 (gas), Sch. JLH-5-1, at 137-138). The Department has previously approved adjustments to class revenue requirements similar to what Fitchburg has proposed. See D.T.E. 01-56, at 139; D.T.E. 98-51, at 136-138; D.P.U. 91-106/138, at 129-130. Therefore, we find that the Company's proposal to cap its rate increases, as described above, provides an appropriate balance between our goals of continuity and fairness and is consistent with Department precedent. Accordingly, we direct Fitchburg to cap the revenue requirement increase for all rate classes at 125 percent of the average increase approved by the Department. The Company

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[107] The Company stated that its proposed rate base did not reflect the actual revenue requirements of the class. In addition, some classes have greater revenue requirements because of expense allocations rather than rate base allocations. In these circumstances, the Company used test year revenue as the allocator instead of rate base (Tr. 5, at 546).

is directed to collect the remaining revenue requirements from the uncapped rate classes based on a test year revenue allocator. The Department directs the Company, in its next rate case filing, to allocate any revenue deficiency such that equal rates of return are provided by all rate classes, unless continuity concerns require similar caps.

2. Rate-by-Rate Analysis

a. Introduction

To determine the customer and delivery charges proposed for each rate class for its gas division, the Company compared the results of its MCS with the amount it needed to adjust its current rates to collect its proposed revenue requirement. Because the marginal delivery charges are higher than the current delivery charges for each rate class, Fitchburg first increased each rate class' volumetric and demand charges, where applicable, to marginal cost. Next, the Company set the customer charges at a level that would collect the remaining revenue requirement, because the customer charge is the least elastic portion of the rate. Fitchburg then compared the new rates, calculated as described above, to its current rates and made refining adjustments to each rate component (including the customer charge) based on the principle of rate continuity (Exh. FGE KMA-1, at 362 (gas)).

b. Positions of the Parties

i. DOER

DOER maintains that the Company's gas rates should be set as close as possible to marginal costs, arguing that economic efficiency is improved when services are priced at marginal costs (DOER Brief at 15, 27-29). However, DOER states that the rates proposed by Fitchburg set the customer charges significantly below marginal costs, while the variable delivery charges are set significantly above marginal costs (id. at 16). Therefore, DOER argues that the Company should lower its variable delivery charges and increase the price for its monthly customer charges (id. at 16-19). DOER contends that increasing customer charges and decreasing volumetric charges will make Fitchburg less dependent on weather, thus stabilizing revenues and earnings (id. at 20).[108] In addition, DOER argues that its proposed rate design will lead to more efficient utility operations and remove barriers to retail competition (id. at 29).

ii. Attorney General

The Attorney General states that the Department should reject DOER's proposal for increasing the gas customer charges for two reasons. First, the Attorney General asserts that the Company's marginal cost studies are flawed and should not be relied upon when designing rates (Attorney General Reply Brief at 45). Second, the Attorney General argues that DOER's proposal violates the Department's rate continuity goal for the majority of customers, as it

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[108] DOER argues that higher customer charges will allow the Company's ROE to be set at the lower end of the reasonable range, because earnings stability makes the Company less of a risk to the typical investor (DOER Brief at 20, n.36).

would result in significantly higher bills for low-use gas customers (id. at 45-46). The Attorney General argues that DOER's proposal is not economically efficient because it sets the most inelastic part of the bill (the customer charge) close to marginal cost, thereby reducing the most elastic part of the bill (the delivery charges) (id. at 45, n.41, citing D.P.U. 93-60, at 377-379; Western Massachusetts Electric Company, D.P.U. 84-25, at 173, 176 (1984) (economic efficiency comes from setting the most elastic rate component close to or equal to marginal cost)). As a result, the Attorney General maintains that DOER's proposal will devalue the price signal needed to encourage conservation and the ultimate avoidance of incremental costs (id. at 45, n.41).

iii. Fitchburg

The Company accepts that DOER's proposal to increase the gas customer charges could further the goals of rate design including rate continuity, efficiency, fairness, and intergenerational equity (Fitchburg Brief at 138-139). While DOER's proposal is different than the Company's proposed customer charges, Fitchburg states that DOER's policy analysis is sound and contains accurate calculations (Fitchburg Reply Brief at 25).

c. Rates R-1 and R-3

i. Fitchburg Proposal

Rate R-1 is available for all domestic purposes in individual private dwellings or in individual apartments (Exhs. FGE KMA-1 (gas), Sch. KMA-1, at 375; M.D.T.E. No. 110). Rate R-3 is available for all domestic purposes in individual private dwellings or in individual apartments, where such residences are heated exclusively by means of permanently installed

space heating equipment (Exhs. FGE KMA-1 (gas), Sch. KMA-1, at 379; M.D.T.E. No. 112). Rates-1 and R-3 are both available only to residential customers taking service in master-metered buildings containing no more than four apartment units with gas supplied through one meter (Exhs. FGE KMA-1 (gas), Sch. KMA-1, at 375; M.D.T.E. No. 110; FGE KMA-1 (gas), Sch. KMA-1, at 379; M.D.T.E. No. 112). Fitchburg proposes to increase the monthly customer charge by $1.50, from $7 to $8.50, for rates R-1 and R-3 (Exh. FGE KMA-1, at 364-365 (gas)). The Company proposes to collect the remaining class revenue requirement through a single volumetric charge (Exh. FGE KMA-1, at 364-365 (gas)). The Company calculated a charge of $0.5292 per therm for rate R-1, and $0.4238 per therm for rate R-3, based on each class' proposed revenue requirement (Exh. FGE KMA-1 (gas), Sch. KMA-3, at 411-412).

ii. Analysis and Findings

According to the Company's MCS, the marginal customer charge for rates R-1 and R-3 is $33.13 per customer per month (Exh. FGE JLH-1 (gas), Sch. JLH-7, at 341). In order to meet the goal of efficiency, the Company proposes to set the preliminary rate design for rates R-1 and R-3 by setting the volumetric charge to marginal cost. The remaining revenue was reconciled on the customer charge. The resulting rates were then compared against current rates in consideration of rate continuity. The resulting customer charge for rates R-1 and R-3 was deemed by the Company to be unacceptably high, compared to the current charge of $7. Because of the need to balance efficiency and continuity, the Company proposes to set the customer charge as high as possible while considering the balance between efficiency and

continuity (Exh. FGE KMA-1, at 364-365 (gas)). Based on the marginal costs and annual bill impacts for rates R-1 and R-3, the Department finds that designing rates for rates R-1 and R-3 with a $8.50 monthly customer charge satisfies the Department's goal of continuity while moving the customer charge closer to marginal cost. The Department also directs the Company, for each rate class, to collect the remaining class revenue responsibility through the volumetric charge, as specified in Schedule 10 (gas).

d. Rates R-2 and R-4

i. Fitchburg Proposal

Subsided rates are available for all domestic purposes in individual private dwellings or in individual apartments. Eligibility for this rate is established upon verification of a customer's receipt of any means-tested public benefit program or verification of eligibility for the low-income home energy assistance program, or its successor program, for which eligibility does not exceed 175 percent of the federal poverty level based on a household's gross income, or other criteria approved by the Department. Customers who qualify for this subsidy are required each year to certify their continuing eligibility (Exhs. FGE KMA-1 (gas), Sch. KMA-1, at 377; M.D.T.E. No. 111; FGE KMA-1 (gas), Sch. KMA-1, at 381; M.D.T.E. No. 113). The Company proposes that customers on rates R-2 and R-4 continue to receive a 40 percent discount off of rates R-1 and R-3, respectively (Exh. FGE KMA-1, at 364-365 (gas)). The Company proposes to allocate the low-income shortfall to the other rate classes using a rate base allocator (Exh. FGE JLH-1, at 49 (gas)).

ii. Analysis and Findings

The Company began to apply the low-income discount rate after its last rate case and proposes to maintain the low-income discount rate at its current level. Maintaining the low-income discount rate at its current level is appropriate because it continues to provide rate relief to low-income customers, while having a minimal effect on the rates of non-subsidized customers. In addition, no parties objected to the proposed discount levels. Accordingly, the Department directs the Company to set the discount level for rates R-2 and R-4 at 40 percent of the charges for rates R-1 and R-3, respectively.

Regarding the allocation of the low-income subsidy to the other classes, the Department allows the recovery of a revenue shortfall associated with subsidized rates from the utility's remaining customers by allocating the shortfall to the respective rate classes based on a rate base allocator. D.T.E. 01-56, at 145-146; D.T.E. 01-50, at 35; D.P.U. 96-50 (Phase I) at 158. Accordingly, the Department directs the Company, in its compliance filing, to collect the low-income shortfall from the other rate classes using a rate base allocator, as specified in Schedule 10 (gas).

e. Rates G-41 and G-51

i. Fitchburg's Proposal

Rates G-41 and G-51 are available to C&I and institutional customers with annual usage of less than 8,000 therms, for all purposes when gas is for their exclusive use and not for

resale[109] (Exhs. FGE KMA-1 (gas), Sch. KMA-1, at 383; M.D.T.E. No. 114). The Company proposes to increase the monthly customer charge from $21 to $24 for rates G-41 and G-51 (Exhs. FGE KMA-1 (gas), Sch. KMA-1, at 383; M.D.T.E. No. 114). The current distribution charge for rates G-41 and G-51 is $0.2136 per therm. The proposed distribution charge for rate G-41 is $0.3931 per therm (Exh. FGE KMA-1 (gas), Sch. KMA-3, at 413). The proposed distribution charge for rate G-51 is $0.3766 per therm (Exh. FGE KMA-1 (gas), Sch. KMA-3, at 414).

ii. Analysis and Findings

According to the Company's MCS, the marginal customer charges for rates G-41 and G-51 are $56.84 and $56.82 per month, respectively (Exh. FGE JLH-1 (gas), Sch. JLH-7, at 341). In order to meet the goal of efficiency, the Company proposes to set the preliminary rate design for rates G-41 and G-51 by setting the volumetric charge to marginal cost. The remaining revenue was reconciled on the customer charge. The resulting rates were then compared against current. Because of the need to balance the Department's goals of efficiency and continuity, it is difficult to set the customer charge at the marginal customer charge level. The Company proposes to set the increase in the customer charge at slightly less than the overall revenue requirement increase for these rate classes taken together (Exh. FGE KMA-1,

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[109] Summer usage is defined as consumption in the months of May through October. Low load factor is defined as those rate classes whose winter usage is greater than or equal to 70 percent of annual usage. Rates G-41, G-42, and G-43 are the Company's low load factor rate classes. High load factor is defined as those rate classes whose winter usage is greater than or equal to 70 percent of annual usage. Rates G-51, G-52, and G-53 are the Company's high load factor rate classes (Exh. FGE KMA-1 (gas), Sch. KMA-1, at 383-391).

at 366 (gas)). Based on the marginal costs and annual bill impacts for rates G-41 and G-51, the Department finds that designing rates for rates G-41 and G-51 with a $24 monthly customer charge satisfies the Department's goal of continuity while moving the customer charge closer to marginal cost. The Department also directs the Company to collect the remaining rate class revenue responsibility of rates G-41 and G-51 through a single volumetric charge, as specified in Schedule 10 (gas).

f. Rates G-42 and G-52

i. Fitchburg Proposal

Rates G-42 and G-52 are available to C&I and institutional customers with annual usage between 8,000 and 80,000 therms, for all purposes when gas is for their exclusive use and not for resale (Exhs. FGE KMA-1 (gas), Sch. KMA-1, at 386; M.D.T.E. No. 115). The Company proposes to increase the monthly customer charge from $100 to $120 for rates G-42 and G-52 (Exhs. FGE KMA-1 (gas), Sch. KMA-1, at 386; M.D.T.E. No. 115). The current distribution charges for rate G-42 and G-52 are $0.2025 per therm and $0.1948 per therm, respectively. The proposed distribution charge for rate G-42 is $0.2904 per therm (Exh. FGE KMA-1 (gas), Sch. KMA-3, at 415). The proposed distribution charge for rate G-52 is $0.2695 per therm (Exh. FGE KMA-1 (gas), Sch. KMA-3, at 416).

ii. Analysis and Findings

According to the Company's MCS, the marginal customer charges for rates G-42 and G-52 are $150.16 and $142.11 per month, respectively (Exh. FGE JLH-1 (gas), Sch. JLH-7, at 341). In order to meet the goal of efficiency, the Company proposes to set the preliminary

rate design for rates G-42 and G-52 by setting the volumetric charge to marginal cost. The remaining revenue was reconciled on the customer charge. The resulting rates were then compared against current rates. Because of the need to balance the Department's goals of efficiency and continuity, it is difficult to set the customer charge at the marginal customer charge level. The Company proposes to set the customer charge at approximately half the difference between the current customer charge and the marginal costs (Exh. FGE KMA-1, at 366 (gas)). Based on the marginal costs and annual bill impacts for rates G-42 and G-52, the Department finds that designing rates for rates G-42 and G-52 with a $120 monthly customer charge satisfies the Department's goal of continuity while moving the customer charge closer to marginal cost. The Department also directs the Company to collect the remaining class revenue responsibility of rates G-42 and G-52 through the volumetric charge, as specified in Schedule 10 (gas).

g. Rates G-43 and G-53

i. Fitchburg Proposal

Rates G-43 and G-53 are available to C&I and institutional customers with annual usage of greater than 80,000 therms, for all purposes when gas is for their exclusive use and not for resale (Exhs. FGE KMA-1 (gas), Sch. KMA-1, at 389; M.D.T.E. No. 116). The Company proposes to increase the monthly customer charge from $200 to $620 for rates G-43 and G-53 (Exh. FGE KMA-1 (gas), Sch. KMA-3, at 417-418). The current volumetric charges for rates G-43 and G-53 are $0.0979 per therm and $0.0880 per therm, respectively. The current demand charges for rates G-43 and G-53 are $1.24 per maximum daily demand ("MDD")

therm and $1.83 per MDD therm, respectively. The proposed volumetric charge and demand charge for rate G-43 are $0.1414 per therm and $1.42 per MDD therm (Exh. FGE KMA-1 (gas), Sch. KMA-3, at 417). The proposed volumetric charge and demand charge for rate G-53 are $0.1173 per therm and $1.75 per MDD therm (Exh. FGE KMA-1 (gas), Sch. KMA-3, at 418).

The Company proposes to collect 50 percent of the distribution capacity costs through a demand charge and 50 percent through a volumetric charge. This is the same percentage split as in the current rates (Exhs. FGE KMA-1, at 367 (gas); DTE 1-51 (gas)).

ii. Analysis and Findings

According to the Company's MCS, the marginal customer charge for rates G-43 and G-53 is $631.12 per month (Exh. FGE JLH-1 (gas), Sch. JLH-7, at 341). In order to meet the goal of efficiency, the Company proposes to set the preliminary rate design for rates G-43 and G-53 by setting the volumetric charge to marginal cost. The remaining revenue was reconciled on the customer charge. The resulting rates were then compared against current rates. Because of the need to balance efficiency and continuity, it is difficult to set the customer charge at the marginal customer charge level. The Company proposes to set the increase in the customer charge to full marginal costs (Exh. FGE KMA-1, at 367 (gas)). Because these classes are limited to high-use customers, the proposed customer charge increase has no measurable effect on any customers on these rates. Therefore, based on the marginal costs and annual bill impacts for rates G-43 and G-53, the Department finds that designing rates for rates G-43 and G-53 with a $620 monthly customer charge is appropriate. The Department directs

the Company to collect the remaining class revenue responsibility for rates G-43 and G-53, collecting 50 percent through the volumetric charge and 50 percent through the demand charge, as specified in Schedule 10 (gas).

F. Electric Rate Structure

1. Interclass Revenue Requirement Allocation

a. Fitchburg Proposal

The Department's rate design goals are the same for electric as they are for gas. For a detailed discussion of these goals, see Section VII(E)(1)(a), above. A comparison between present base revenues and the Company's COSS show significant differences, especially in the case of the small C&I class (GD-1) and the outdoor lighting class (SD) (Exhs. FGE JLH-1, at 23 (electric); FGE JLH-1 (electric), Sch. JLH-4, at 152). At equalized rates of return, the regular and large C&I rate classes would receive, on average, a rate change below the Company-average rate increase (Exh. FGE JLH-1 (electric), Sch. JLH-4, at 152, Column (4)). Thus, the Company was concerned that its COSS demonstrated interclass subsidization (Exh. FGE JLH-1, at 23-24 (electric)). To address this interclass subsidization, the Company proposes to develop class revenue requirements in such a way that no class received an increase greater than 125 percent of the system average increase requested by the Company, or 30.8 percent (125 percent of 24.6 percent) (Exhs. FGE JLH-1, at 23 (electric); FGE-JLH-1 (electric), Sch. JLH-4, at 152). The Company also established a minimum revenue target of present levels, i.e., no class was to receive a decrease (Exh. FGE JLH-1, at 23 (electric)). The remaining revenue increase requested by the Company was then allocated to those classes

whose revenue requirement was below the cap on a pro rata basis based on current revenues (id. at 23-24).

b. Analysis and Findings

The Department's long-standing policy regarding the allocation of class revenue requirements is that a company's total distribution costs should be allocated on the basis of equalized rates of return. See D.T.E. 01-56, at 139; D.P.U. 92-210, at 214; D.P.U. 92-250, at 194. This allocation satisfies the Department's rate structure goal of fairness. However, we must balance our goal of fairness with our goal of continuity. To do this, we have reviewed the changes in total revenue requirements by rate class and the annual and seasonal bill impacts by consumption level within rate classes. We find that continuity considerations do not allow us to move to fully equalized rates of return without substantial rate increases to rates GD-1 and SD (Exh. FGE JLH-1 (electric), Sch. JLH-2-1, at 58). The Department has previously approved adjustments to class revenue requirements similar to what Fitchburg has proposed. See D.T.E. 01-56, at 139; D.T.E. 98-51, at 136-138; D.P.U. 91-106, at 129-130. Therefore, we find that the Company's proposal provides an appropriate balance between our goals of continuity and fairness and is consistent with Department precedent. Accordingly, we direct Fitchburg to cap the revenue requirement increase for all rate classes at 125 percent of the average increase approved by the Department. The Company is directed to collect the remaining revenue requirements from the uncapped rate classes based on a test year revenue allocator. The Department directs the Company, in its next rate case filing, to allocate any

revenue deficiency such that equal rates of return are provided by all rate classes, unless continuity concerns require similar caps.

2. Rate-by-Rate Analysis

a. Introduction

Aside from the Department's rate structure goals discussed above, rate design for the Company's electric division is limited by the Restructuring Act. Under the Act, overall rates by customer class are limited to 85 percent of the inflation-adjusted rates in effect in August 1997 and rates for each customer class include a uniform transition charge ("UTC"), which must be equal across all classes (Exh. FGE KMA-1, at 353 (electric)).

To determine the customer and delivery charges for each rate class, the Company compared the results of its marginal cost studies with its current rates as well as the revenue requirement it proposed to collect (id. at 354). Because the marginal delivery charges were higher than the current delivery charge for each rate class, the Company proposes first to increase each rate class' volumetric and demand charges, where applicable, to marginal costs (id.). Then Fitchburg reconciled the target revenue to be recovered on the customer charge, the least elastic portion of the rate (id.).

Rate design for the Company's electric division is further limited by the 15 percent rate-reduction and the transition charge provisions of the Act.[110] Consequently, the Company

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[110] Standard offer service rates are limited to 85 percent of the inflation-adjusted rates in effect in August 1997. G.L. c. 164, § 1B. The Department has interpreted this requirement to apply to rates by customer class, and not individual customers. Letter to All Distribution Companies Re: 1999 Transition Charge Reconciliation Filings, (continued...)

made initial adjustments to all rate components in order to establish initial rates to determine the transition charge for each class in light of the rate cap requirement of the Act (id. at 355). The Company then calculated the UTC in accordance with the guidelines set forth in the Act (id.). Next, Fitchburg made final adjustments to the rates, including changing customer charges, where appropriate (id.). Finally, the Company reconciled target revenue on remaining rate components and verified that the rate cap requirement of the Act was met (id.).

b. Positions of the Parties

i. DOER

DOER states that economic efficiency is improved when services are priced at marginal costs (DOER Brief at 15, 27-29). The rates proposed by the Company set the customer charges significantly below marginal costs and set the variable delivery charges significantly above marginal costs (id. at 21). DOER proposes that the Company adopt a rate design that produces fixed charges equivalent to the average fixed charges of other Massachusetts distribution companies (id. at 15). Accordingly, DOER suggests that the Company lower its variable delivery charges and increase the price for its monthly customer charges (id. at 20-23). DOER argues that its proposed customer charges and energy charges for the RD-1, RD-2 and GD-1 rate classes are consistent with the Department's goal of rate continuity (id. at 22-23). DOER notes that the largest percentage of monthly bill impacts are less than

[110](...continued)
December 17, 1999. The Act also requires rates for each customer class to include a non-bypassable transition charge which the Department has stated must be equal across all classes. G.L. c. 164, § 1G; see D.T.E. 97-115/98-120, at 40.

$3.33 per month (id. at 23, Att. 10). DOER does not take issue with the conceptual method employed by Fitchburg to design rates (id. at 21). DOER also argues that the recommended rates are fair and simple, and that they encourage earnings stability and promote economic efficiency (id. at 23). Finally, DOER argues that the proposed rate design will lead to more efficient utility operations and remove barriers to retail competition (id. at 29).

ii. Attorney General

The Attorney General argues that the Department should reject DOER's proposed increases to the Company's electric customer charges for two reasons (Attorney General Reply Brief at 45). First, the Attorney General argues that the MCS is flawed and should not be relied on to design rates (id.). Second, the Attorney General argues that DOER's proposed rates would violate the Department's goal of rate continuity (id. at 46). In addition, the Attorney General avers that DOER's proposed rates may eliminate the fifteen percent discount that standard offer customers must receive (id. at 47).

iii. Fitchburg

The Company argues that DOER's recommendation of increasing Fitchburg's electric customer charges both recognizes and achieves the Department's goal of rate design: rate continuity, efficiency, fairness, and intergenerational equity (Fitchburg Brief at 138-139). While DOER's proposal is different than the Company's initially proposed customer charges, Fitchburg states that DOER's policy analysis is sound and contains accurate calculations (Fitchburg Reply Brief at 25).

c. Rates RD-1 and RD-2

i. Fitchburg Proposal

Rates RD-1 and RD-2 are available for all domestic purposes in individual private dwellings or in individual apartments (Exhs. FGE KMA-1 (electric), Sch. KMA-1, at 366; M.D.T.E. No. 86; KMA-1 (electric), Sch. KMA-1, at 368; M.D.T.E. No. 87). Rate RD-2 is a subsidized rate available to customers who are recipients of any means-tested public benefit program, the low-income home energy assistance program, or its successor program, for which eligibility does not exceed 175 percent of the federal poverty level based on a household's gross income or other criteria approved by the Department (Exhs. FGE KMA-1 (electric), Sch. KMA-1, at 368; M.D.T.E. No. 87). Rate RD-2 customer and energy charges are set at 60 percent of those for rate RD-1 (Exh. FGE KMA-1, at 357 (electric)). The Company proposes to allocate the low-income shortfall to the other rate classes using a rate base allocator (Exh. FGE JLH-1 (electric), Sch. JLH-4, at 152). Both RD-1 and RD-2 rates are available only for delivery service (Exhs. FGE KMA-1 (electric), Sch. KMA-1, at 366 ; M.D.T.E. No. 86; KMA-1 (electric), Sch. KMA-1, at 368; M.D.T.E. No. 87). Fitchburg proposes to increase the monthly customer charge from $2.60 to $3.02 for rate RD-1 and from $1.61 to $1.87 for rate RD-2 (Exh. FGE KMA-1 (electric), Sch. KMA-3, at 390). The Company proposes to collect the remaining class revenue requirement through a single volumetric charge (Exh. FGE KMA-1, at 358 (electric)). The Company calculates an energy charge of $0.04475 per KWH for rate RD-1 and $0.02014 per KWH for rate RD-2, based on each class' proposed revenue requirement (Exh. FGE KMA-1 (electric), Sch. KMA-3, at 390).

ii. Analysis and Findings

Fitchburg set preliminary rates by applying the total increase for the class to each rate component (Exhs. FGE KMA-1, at 357 (electric); FGE KMA-1 (electric), Sch. KMA-3, at 390). The Company then determined the optimal UTC, which must be equal for all customer classes (Exhs. FGE KMA-1, at 357 (electric); KMA-1 (electric), Sch. KMA-4, at 396). This UTC rate replaced the initially-calculated transition charge for each customer class (Exh. FGE KMA-1, at 358 (electric)). The revenue shift caused by this substitution required additional refinements to distribution rate components to arrive at the final customer charges and energy rates necessary to comply with the rate cap requirement of the Restructuring Act (Exh. FGE KMA-1, at 358 (electric)).

Fitchburg used its August 1997 customer charges as a starting point for developing the final customer charges for rates RD-1 and RD-2 (Exh. FGE KMA-1, at 358 (electric)). The Company applied inflation to the August 1997 customer charges and then discounted the rate by 15 percent (Exhs. FGE KMA-1, at 358 (electric); KMA-1 (electric), Sch. KMA-3, at 390). The Company then reconciled the remaining revenues on the energy component (Exhs. FGE-KMA-1, at 358 (electric); KMA-1 (electric), Sch. KMA-3, at 390).

Although moving rates closer to marginal costs is a desirable goal, the rate reduction requirements of the Act prevent any further movement towards marginal costs. G.L. c. 164, § 1F(4)(i). Therefore, the Department finds that setting the RD-1 and RD-2 customer charges at 85 percent of the inflation-adjusted August 1997 customer charges is appropriate. The Department also directs the Company, for each rate class, to collect the remaining class

revenue responsibility through a single volumetric charge, as specified in Schedule 10 (electric).

The Department also finds that maintaining the low-income discount rate at its current level, as proposed by the Company, is appropriate because it will continue to provide rate relief to low-income customers, while having a minimal effect on the rates of non-subsidized customers. Accordingly, the Department directs the Company to set the discount for rate RD-2 at 60 percent of the rate RD-1 customer charge and energy rate.

Regarding the allocation of the low-income subsidy to the other classes, the Department allows the recovery of a revenue shortfall associated with subsidized rates from the utility's remaining customers by allocating the shortfall to the respective rate classes based on a rate base allocator. D.T.E. 01-56, at 146; D.T.E. 01-50, at 35; D.P.U. 96-50 (Phase I) at 158. Accordingly, the Department directs the Company, in its compliance filing, to collect the low-income shortfall from the other classes using a rate base allocator, as specified in Schedule 10 (electric).

d. Rate GD-1

i. Fitchburg Proposal

Rate GD-1 is available to all customers with non-residential loads consistently under four KWs and energy consumption less than 850 KWH per month (Exhs. FGE KMA-1 (electric), Sch. KMA-1, at 371; M.D.T.E. No. 88). The Company proposes to increase the monthly customer charge from $5.91 to $6.83 for rate GD-1 (Exh. FGE KMA-1 (electric), Sch. KMA-3, at 391). The current distribution charge for rate GD-1 is $0.03740 per KWH

(Exh. FGE KMA-1 (electric), Sch. KMA-3, at 391). The proposed distribution charge for rate GD-1 is $0.04548 per KWH (Exh. FGE KMA-1 (electric), Sch. KMA-3, at 391).

ii. Analysis and Findings

To develop the GD-1 rate, the Company used the same method used for the development of the RD-1 rate (Exh. FGE KMA-1, at 359 (electric)). After the UTC was calculated, Fitchburg used its August 1997 customer charges as a starting point for developing the final customer charge for rate GD-1 (Exh. FGE KMA-1, at 359 (electric)). The Company applied inflation to the August 1997 customer charges and then discounted the rate by 15 percent (Exhs. FGE KMA-1, at 359 (electric); KMA-1 (electric), Sch. KMA-3, at 391). Fitchburg then reconciled the remaining revenues on the energy component (Exhs. FGE KMA-1, at 359 (electric); KMA-1 (electric), Sch. KMA-3, at 391).

Although moving rates closer to marginal costs is a desirable goal, the rate reduction requirements of the Act prevent any further movement towards marginal costs. G.L. c. 164, § 1F(4)(i). Therefore, the Department finds that setting the GD-1 customer charge at 85 percent of the inflation-adjusted August 1997 customer charges is appropriate. The Department also directs the Company to collect the remaining class revenue responsibility of rate GD-1 through a single volumetric charge, as specified in Schedule 10 (electric).

e. Rates GD-2, GD-4 and GD-5

i. Fitchburg Proposal

Rate GD-2 is available to commercial customers with demands, excluding space heating and water heating loads eligible under the GD-5 rate, consistently greater than or equal to

four KW or energy consumption consistently greater than or equal to 850 KWH per month and generally less than 120,000 KWH per month (Exhs. FGE KMA-1 (electric), Sch. KMA-1, at 372; M.D.T.E. No. 88). Rate GD-4 is an optional general delivery time-of-use rate available to customers billed under the GD-2 rate (Exhs. FGE KMA-1 (electric), Sch. KMA-1, at 373; M.D.T.E. No. 88). Rate GD-5 is an optional water and/or space heating delivery rate (Exhs. FGE KMA-1 (electric), Sch. KMA-1, at 374; M.D.T.E. No. 88). The Company proposes to increase the monthly customer charge from $0.13 to $6.83 for rate GD-2 and from $3.43 to $6.83 for rate GD-4 (Exh. FGE KMA-1 (electric), Sch. KMA-3, at 392). The Company proposes to decrease the monthly customer charge from $0.13 to $0 for rate GD-5 (Exh. FGE KMA-1 (electric), Sch. KMA-3, at 392). The Company stated that the customer charge was set at zero for rate GD-5 because it is a rider for rate GD-2 (Exh. FGE KMA-1, at 359 (electric)). For rate GD-2, the Company proposes to increase the energy charge from $0.01300 per KWH to $0.01535 per KWH (Exh. FGE KMA-1 (electric), Sch. KMA-3, at 392). Also, the Company proposes to increase the demand rate for rate GD-2 from $5.44 per KW to $6.42 per KW (Exh. FGE KMA-1 (electric), Sch. KMA-3, at 392). For rate GD-4, the Company proposes to decrease the on-peak energy charge from $0.01712 per KWH to $0.01111 per KWH and decrease the off-peak energy charge from $0.00379 per KWH to $0.00246 per KWH (Exh. FGE KMA-1 (electric), Sch. KMA-3, at 392). Also, the Company proposes to decrease the demand charge for rate GD-4 from $5.94 per KW to $3.86 per KW (Exh. FGE KMA-1 (electric), Sch. KMA-3, at 392). For rate GD-5, the Company proposes to increase the energy charge from $0.03253 per KWH to $0.04009 per KWH

(Exh. FGE KMA-1 (electric), Sch. KMA-3, at 392).

ii. Analysis and Findings

To develop the GD-2, GD-4 and GD-5 rates, the Company used the same method that was used for the development of the RD-1 rate (Exh. FGE KMA-1, at 359 (electric)). After the UTC was calculated, the customer charge for rates GD-2 and GD-4 was set the same as rate GD-1 (Exh. FGE KMA-1, at 359 (electric)). The Company proposes to move the customer charge for rates GD-2 and GD-4 closer to the marginal cost of $44.96 per customer (Exh. FGE KMA-1, at 360 (electric)). The remaining revenue was reconciled on the energy and demand components using the same ratio between energy (on- and off-peak for rate GD-4) and demand revenues that are in current rates in order to keep individual bill impacts within the 15 percent rate reduction requirement of the Act (Exhs. FGE KMA-1, at 360 (electric); FGE KMA-1 (electric), Sch. KMA-3, at 392). Based on the marginal cost and the annual bill impacts for rates GD-2 and GD-4, the Department finds that designing rates for rates GD-2 and GD-4 with a $6.83 monthly customer charge satisfies the Department's goal of continuity while moving the customer charge closer to marginal cost. In addition, because rate GD-5 is a rider for rate GD-2, the Department finds it reasonable to set the rate GD-5 customer charge at zero. The Department also directs the Company to collect the remaining class revenue responsibility of rates GD-2, GD-4 and GD-5 through the energy and demand charges, while maintaining the same ratio between energy (on- and off-peak for rate GD-4) and demand revenues that are in current rates, as specified in Schedule 10 (electric).

f. Rate GD-3

i. Fitchburg Proposal

Rate GD-3 is available to C&I customers who have monthly usage consistently greater than 120,000 KWH (Exhs. FGE KMA-1 (electric), Sch. KMA-1, at 372; M.D.T.E. No. 88). The Company proposes to increase the monthly customer charge from $0.13 to $500 for rate GD-3 (Exhs. FGE KMA-1, at 360 (electric); FGE KMA-1 (electric), Sch. KMA-3, at 393). The Company proposes to increase the rate GD-3 on-peak energy charge from $0.01117 per KWH to $0.01449 per KWH and the off-peak energy charge from $0.00252 per KWH to $0.00327 per KWH (Exh. FGE KMA-1 (electric), Sch. KMA-3, at 393). The Company proposes to increase the rate GD-3 demand charge from $2.70 per KW to $3.50 per KW (Exh. FGE KMA-1 (electric), Sch. KMA-3, at 393).

ii. Analysis and Findings

According to the Company's MCS, the marginal customer charge for rate GD-3 is $1,505.15 per month (Exh. FGE KMA-1 (electric), Sch. KMA-3, at 393). To develop the GD-3 rates, the Company used the same method that was used to develop the GD-4 rate (Exh. FGE KMA-1, at 360 (electric)). After the UTC was calculated, the customer charge for rate GD-3 was set at $500 (Exh. FGE KMA-1, at 360 (electric)). The Company proposes to move the customer charge for rate GD-3 closer to the marginal cost of $1,505.15 per customer (Exh. FGE-KMA-1, at 360 (electric)). The remaining revenue was reconciled on the energy and demand components using the same ratio between energy (on- and off-peak) and demand

revenues that are in current rates in order to keep individual bill impacts within the fifteen percent rate reduction requirement of the Act (Exhs. FGE KMA-1, at 361 (electric), FGE KMA-1, Sch. KMA-3, at 393 (electric)). Based on the marginal cost and annual bill impacts for rate GD-3, and because this rate class is limited to large customers, the customer charge increase has minimal effect on the increase to the overall bill of any customers on this rate. Therefore, the Department finds that designing rates for rate GD-3 with a $500 monthly customer charge is appropriate. The Department also directs the Company to collect the remaining class revenue responsibility of rate GD-3, through the energy and demand charges, while maintaining the same ratio between energy and demand revenues that are in current rates, as specified in Schedule 10 (electric). In addition, the Company shall incorporate the revised Newark usage numbers into the billing determinants for rate GD-3 when designing the revised rates for the compliance filing.

g. Rate SD

i. Fitchburg Proposal

Rate SD is available to all customers for outdoor lighting delivery service with the Company's standard lighting fixtures mounted on existing poles (Exhs. FGE KMA-1 (electric), Sch. KMA-1, at 379; M.D.T.E. No. 89). The Company proposes to increase the luminaire charge for all classes of outdoor lighting (Exh. FGE KMA-1 (electric), Sch. KMA-3, at 394). The Company also proposes to increase the energy charge for all classes of outdoor lighting from $0.00054 per KWH to $0.00066 per KWH (Exh. FGE KMA-1 (electric), Sch. KMA-3, at 394).

ii. Analysis and Findings

The Company did not perform a MCS for the outdoor lighting rate class due to "significant administrative cost and burden" (Exh. FGE KMA-1, at 361, n.2 (electric)). The Company first identified the revenue target for the class (Exh. FGE KMA-1, at 361 (electric)). Preliminary rates were set by applying the total increase for the class to each rate component (Exh. FGE KMA-1, at 361 (electric)). Once the UTC was calculated, the Company refined the preliminary rates by adjusting the luminaire and energy charges by an equal percentage to meet the adjusted revenue target (Exh. FGE KMA-1, at 361-362 (electric)). The Department finds that the rate design method employed by the Company to design the rates for rate SD is reasonable because it complies with the Department's rate setting goals, to the extent possible. The Department directs the Company to set the monthly luminaire charges at the levels proposed, and to collect the remaining class revenue responsibility of rate SD through the energy charge, as specified in Schedule 10 (electric).

h. Elimination of Rates RD-4 and GD-6

i. Fitchburg Proposal

The Company proposes to eliminate rates RD-4 (residential optional time-of-use) and GD-6 (C&I optional small general delivery time-of-use) (Exh. FGE KMA-1, at 351 (electric)). The Company states that rate RD-4 averaged three customers in the test year and no significant load shifting was observed (Exh. FGE KMA-1, at 351 (electric)). Customers on rate RD-4 will be moved to rate RD-1 (Exh. FGE KMA-1, at 351 (electric)). Rate GD-6 had no participation in the test year (Exh. FGE KMA-1, at 351 (electric)). The Company argues that

eliminating these two rates will advance the goal of rate simplicity and reduce the cost of rate administration (Exh. FGE-KMA-1, at 351 (electric)). No parties commented on the Company's proposal to eliminate rates RD-4 and GD-6.

ii. Analysis and Findings

If a utility is offering a rate that has no participation (i.e., the class has no members, such as rate GD-6) it is reasonable to eliminate such a rate. Further, if a utility is offering a rate, but not achieving the desired results (such as load shifting in the case of rate RD-4), then it is reasonable to eliminate such a rate. Eliminating these rates will advance the rate structure goal of simplicity. In addition, no customers will be adversely harmed by the elimination of rates RD-4 and GD-6. Therefore, the Department will allow Fitchburg to eliminate rates RD-4 and GD-6.

G. Gas Tariff Modifications

1. CGAC Local Gas Costs

a. Introduction

The Company proposes to revise its CGAC tariff to incorporate Fitchburg's proposed rates for recovery of local gas costs and changes to the local gas cost recovery mechanism (Exh. FGE KMA-1, at 359 (gas)).[111] The proposed rates are being changed to include test year 2001 costs (id. at 368). Regarding the recovery mechanism, Fitchburg proposes to remove the reconciling features of the current tariff in order to achieve consistency with the Company's

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[111] Local gas costs, as defined by the Company, include local production capacity and storage costs, dispatch, acquisition, and FERC costs, and production related overhead (Exh. FGE KMA-1, at 368 (gas)).

PBR plan where Fitchburg proposes to adjust local gas costs annually by an inflation factor adjusted by a productivity offset over the term of the plan (id.). The existing CGAC tariff reconciles revenues to test year costs. The Company argues that, by removing the reconciling feature, local gas rates will operate like the distribution base rates (id. at 369).

b. Positions of the Parties

i. Attorney General

The Attorney General argues that the Company's proposal to apply an inflation factor to its local gas costs must be rejected even if the Department approves a PBR for Fitchburg (Attorney General Brief at 75). The Attorney General argues that the only support offered by the Company for the proposed change is that it is "consistent" with the proposed treatment of the corresponding costs in base rates (id.). The Attorney General also argues that the Company failed to demonstrate that local gas costs increase over time; rather, the evidence indicates that these costs remain relatively constant from year to year (id.). Therefore, the Attorney General contends that guaranteed recovery plus an inflation increase every year would be unreasonable, particularly when there is little if any annual increase in this category of costs (id. at 75-76). Finally, the Attorney General contends that the Department addressed this issue when it did not allow Boston Gas Company to apply its PBR factor to similar costs in its CGAC (id. at 76, citing Boston Gas Company, D.P.U. 97-92, at 16 (1997)).

ii. Fitchburg

The Company argues that, because the Department did not consolidate its investigation of the rate cases with an investigation of Fitchburg's proposed PBR plan, the only issue before the Department in this proceeding is whether or not the reconciling features of the production base rate components should be removed (Fitchburg Brief at 138). Fitchburg contends that because these costs were historically part of base rates, the same ratemaking treatment should be afforded these costs (id.). The Company concludes that the Department should reject the Attorney General's complaint about Fitchburg's proposed PBR mechanism and approve the Company's proposal to remove the reconciling features (id.).

c. Analysis and Findings

The Company's proposed PBR is not being investigated in the instant proceeding. Therefore, we will address only Fitchburg's proposal to remove the reconciliation features present in the current CGAC tariff. The Company argues that because local gas costs were historically recovered via base rates prior to unbundling, these costs should be afforded the same ratemaking treatment as base rates and not be reconciled. We disagree. Local gas costs are recovered via the CGAC because they were found by the Department to be gas-related costs. Berkshire Gas Company, D.T.E. 98-65 (1998); Colonial Gas Company, D.T.E. 98-64, (1998); Commonwealth Gas Company, D.T.E. 98-63 (1998); D.T.E. 98-51, at 135; North Attleboro Gas Company, D.T.E. 98-61 (1998). Pursuant to 220 C.M.R. § 6.00 et seq., the Department presently allows local distribution companies to recover, on a fully reconciling basis, all gas-related costs via the CGAC. Local gas costs are gas-related costs; and,

therefore, Fitchburg is permitted to recover test year costs subject to an annual reconciliation. This method ensures full recovery of actual costs and eliminates the potential for over- or under-recovery, a result that would run contrary to the Department's policy of dollar-for-dollar recovery of gas-related costs, proximate to the time of consumption as practicable. The Company failed to explain how removal of the reconciliation mechanism would be consistent with this policy. Therefore, the Department approves the proposed rates for recovery of local gas costs but directs the Company to retain the reconciliation mechanism outlined in its current CGAC tariff.

2. CGAC Tariff and Terms and Conditions Tariff Clarification

a. Introduction

The Company filed a CGAC tariff to incorporate Fitchburg's proposed changes to the MBA method, margin sharing language, and recovery of local gas costs (Exh. FGE KMA-1, Sch. KMA-3, at 392-407 (gas)). The Attorney General has requested that the Company modify both the CGAC tariff and the Terms and Conditions tariff (Attorney General Brief at 72). Fitchburg does not propose any changes to the Terms and Conditions tariff (Exh. AG 7-29).

b. Positions of the Parties

i. Attorney General

The Attorney General argues that the Company's CGAC and Terms and Conditions tariffs are deficient and requests that they be revised to provide the necessary level of detail contemplated by the Department's regulations (Attorney General Brief at 72). The Attorney

General contends (1) it is impossible to determine how the CGAC is computed, and (2) formulas outlining the method for determining capacity allocations for customers migrating from sales to transportation service are absent from both the Company's CGAC tariff and Terms and Conditions tariff (id.).

In addition, the Attorney General argues that allowing the proposed MBA adjustment to the method of computing the CGAC without a revision to the tariff presents a risk that a utility may introduce a potentially significant rate change in a proceeding that does not require an investigation or hearing (id. at 72-73). The Attorney General argues that, as part of its compliance filing, Fitchburg should be ordered to file both CGAC and Terms and Conditions tariffs that clearly define all terms used in the tariffs and identify and fully explain all formulas used to determine the cost of gas adjustment charges and capacity costs allocated to eligible migrating customers (id. at 73).[112]

ii. Fitchburg

The Company argues that, by proposing specific changes to Fitchburg's CGAC tariff, the Attorney General in effect introduces a new line of argument in his reply brief (Fitchburg Reply Brief at 26). The Company contends that the Attorney General's arguments go beyond the issue of the limited changes to the CGAC tariff relating to the recovery of local gas costs and MBA method submitted by Fitchburg, and are outside the scope of the established record

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[112] In his reply brief, the Attorney General outlines suggested language for eleven existing sections of Fitchburg's CGAC tariff and also proposes the creation of a new section concerning CGAC calculations (Attorney General Reply Brief at 49-53). In addition, the Attorney General recommends 22 additional definitions and nine definition expansions for existing terms in § 6.05 of the CGAC tariff (id. at 50-51).

in this proceeding (id.). Fitchburg further argues that the suggestions offered in the Attorney General's reply brief are too detailed and were issued too late in this proceeding to receive consideration by the Department (id.).

The Company maintains that, as a rate contract between customers and the Company, the CGAC tariff should be concise and argues that the Attorney General's proposals will burden and confuse an already complicated document (Fitchburg Brief at 137). The Company contends that the tariff already provides the term of service, the nature of service, the responsibilities of the parties, the price terms and other information which conforms with Department requirements (id.). The Company also suggests that if additional information concerning rate design is required, the public is free to consult Fitchburg's website, or call the Department, the Company or the Attorney General (id.).

Further, the Company contends that, contrary to the Attorney General's assertion, Fitchburg is unable to "slip through" what may be a significant rate change in a CGAC proceeding (id.). The Company asserts that Fitchburg's CGAC filing provides sufficient narrative and calculations, and documents methods approved in a previous rate case (id.). The Company also contends that Fitchburg's compliance filing in this proceeding, which is subject to review and approval by the Department, will set forth a model for future CGAC filings (id. at 137-138).

Finally, the Company contends that the Terms and Conditions submitted in this proceeding were standard Terms and Conditions derived from the collaborative process in D.T.E. 98-32-B (Fitchburg Reply Brief at 26). Fitchburg claims that all of these matters were

determined with finality in a Department Order approving language developed by multiple parties, including the Attorney General, over a long period of time (id., citing D.T.E. 98-32-B). Fitchburg concludes the Department should dismiss the Attorney General's proposed modifications and approve the Company's tariffs as filed (id. at 138).

c. Analysis and Findings

The Company revised its CGAC tariff in order to incorporate proposed changes to three specific areas: the MBA method, margin sharing, and local gas costs. The Attorney General seeks to revise the CGAC tariff in order to fully explain all formulas used to determine the charges and to revise the Terms and Conditions tariff to explain how capacity costs are allocated to eligible migrating customers.

Our review of the Company's proposed CGAC and current Terms and Conditions tariffs indicates that both tariffs contain sufficient detail and clarity and do not warrant further modification. The Department notes that the CGAC tariff submitted by Fitchburg is based on the standard cost of gas adjustment clause as set forth in Attachment A of Standard Cost of Gas Adjustment Clause, D.P.U. 1669-C (1987). Further, § 6.06 of the tariff contains formulas which explain how both peak season and off-peak season GAFs are derived (Exh. FGE KMA-1, Sch. KMA-1, at 397 (gas)). The actual calculation of the GAFs is contained in the Company's CGAC filing. It is in that filing where detailed information regarding costs, loads, and allocators can be found. Interested parties have the opportunity to review, comment, and seek additional information on the filing. To that end, and in order to ensure that the Fitchburg's CGAC filing is consistent with the Company's proposed CGAC

tariff, the Department directs Fitchburg to include in its compliance CGAC filing an explanatory statement describing the MBA method and the calculations of the proposed GAFs as well as all documentation supporting the derivation of all allocators.

Regarding the Company's Terms and Conditions tariff, we note that it is the result of settlements approved by the Department in Model Terms and Conditions for the Natural Gas Industry, D.T.E. 98-32-A (1998) and Model Terms and Conditions for the Natural Gas Industry, D.T.E. 98-32-D (2000), and is the product of the gas unbundling collaborative process. Sections 13.3.1 through 13.3.6 of the Company's Terms and Conditions tariff contain language that explain the method for determining a customer's pro rata share of capacity assignable to a supplier in the event of migration from sales to transportation service (Exh. AG 7-29). No additional information is needed. Further, pursuant to the Company's Terms and Conditions tariff, Fitchburg is required to submit annually for Department review and approval capacity allocation factors by rate class. All parties have the opportunity to review and comment on the calculation of these factors at that time.

The Attorney General's recommended tariff changes were raised on brief. While the Department is not opposed to improving either the CGAC or Terms and Conditions tariffs, we require any such initiative to be an open process where all potentially interested parties have an opportunity to examine proposals and offer comments. Therefore, we will not address the Attorney General's recommendations to modify or expand the number of definitions within the CGAC tariff, nor to add additional language in the tariff in this proceeding. Accordingly, the

Department rejects the Attorney General's recommendations to modify the Company's proposed CGAC and Terms and Conditions tariffs.

VIII. SCHEDULES

SCHEDULE 1 GAS

REVENUE REQUIREMENTS AND
CALCULATION OF REVENUE INCREASE

	DISTRIBUTION PER COMPANY	COMPANY ADJUSTMENT	DTE ADJUSTMENT	PER ORDER
COST OF SERVICE				
Total O&M Expense	$4,638,257	$85,354	(67,720)	$4,655,891
Depreciation and Amortization	1,836,572	(5,309)	(73,140)	1,758,123
Taxes Other Than Income Taxes	578,821	6,119	(647)	584,293
Income Taxes	810,403	(6,368)	(81,727)	722,093
Interest On Customer Deposits	3,956	0	0	3,956
Return On Rate Base	2,544,548	(83,702)	(188,230)	2,272,616
Total Cost Of Service	$10,412,558	(3,906)	$(411,464)	9,997,187
OPERATING REVENUES				
Operating Revenues	$21,633,589	$0	$0	$21,633,589
Less Production Revenues	$14,631,618	$0	$0	$14,631,618
Distribution Revenues	$7,001,971	$0	$0	$7,001,971
Other Revenues	$830,708	$0	$0	$830,708
Less Production Revenues	$792,453	$0	$0	792,453
Other Revenues	$38,255	$0	$0	$38,255
Total Revenues	$7,040,226	$0	$0	$7,040,226
Revenue Deficiency	$3,372,332	(3,906)	(411,464)	2,956,961

SCHEDULE 2 GAS

OPERATIONS AND MAINTENANCE
EXPENSES

	PER	COMPANY ADJUSTMENT	DTE ADJUSTMENT	PER ORDER
Production Expense	$14,387,673	$0	$0	$14,387,673
Less Production related LDAC	(79,222)	0	0	(79,222)
Purchased Gas	13,976,605	0	0	13,976,605
Purchased Gas Weather Normalization	(2,553)	0	0	(2,553)
Total Production O&M Expense	487,737			487,737
Distribution O&M Expense	5,458,142	0	0	5,458,142
Less LDAC	215,276	0	0	215,276
ECS	6,150	0	0	6,150
Production O&M	1,014,642	18,672	(78,051)	955,263
Total Distribution O&M Expense	4,222,074	(18,672)	78,051	4,281,453
Adjustment To Distribution O&M Expense:				
Advertising Expense	(3,781)	0	0	4,281,453
Amortization of Deferred Farm Revenue Credits	1,061	0	0	1,061
Gas/Electric Divisions Allocations	(53,140)	0	0	(53,140)
Incentive Compensation	0	0	(6,052)	(6,052)
Inflation Allowance	71,633	21,206	(3,851)	88,988
Legal Fees	(195,864)	0	0	(195,864)
Medical and Dental Expense	37,844	0	(19,937)	17,907
Non-Utility WH and CB Rental Program	(58,739)	(5,966)	322	(64,383)
Payroll Expense	108,530	(1,151)	0	107,379
Pension Expense	80,189	0	0	80,189
Post Employment Benefit Other Than Pension	24,069	(12,556)	0	11,513
Property and Liability Insurance	(9,116)	(56)	0	(9,172)
Rate Case Expense	70,821	33,735	(111,941)	(7,385)
Rent Expense/Lease Capitalization	0	69,820	0	69,820
Meter Removals	0	0	(517)	(517)
Uncollectible Expense	(133,586)	0	46,812	(86,774)
USC Service Charge	(11,475)	(1,006)	(50,607)	(63,088)
Total Adjustment to Distribution O&M Expense	(71,554)	104,026	(145,771)	(113,299)
TOTAL DISTRIBUTION O&M EXPENSE	4,638,257	85,354	(67,720)	4,655,891

SCHEDULE 3 GAS

DEPRECIATION AND AMORTIZATION EXPENSES

	PER COMPANY	COMPANY ADJUSTMENT	DTE ADJUSTMENT	PER ORDER
Depreciation & Amortization Expense	$1,760,712	$0	$0	$1,760,712
Less Production D & A	118,726	(343)	0	118,383
Distribution D & A Expense	$1,641,986	$343	$0	$1,642,329
Adjustment to Distribution Depreciation	109,199	0	(73,140)	$36,059
Adjustment to Distribution Amortization	85,387	(5,652)	0	$79,735
Total Distribution D & A Expense	$1,836,572	(5,309)	(73,140)	$1,758,123

SCHEDULE 4 GAS

RATE BASE AND RETURN
ON RATE BASE

	PER COMPANY	COMPANY ADJUSTMENT	DTE ADJUSTMENT	PER ORDER
Utility Plant in Service	$42,592,645	$(1,076,468)	$0	$41,516,177
Less Production Utility Plant in Service	3,414,189	(86,289)	0	$3,327,900
	$39,178,456	$(990,179)		$38,188,277
Reserve For Depreciation	$9,575,668	$(4,444)	$(517)	$9,570,707
Less Production Reserve For Dep.	728,816	(338)	0	$728,478
	$8,846,852	$(4,106)	$(517)	$8,842,229
Net Utility Plant in Service	$30,331,604	$(986,073)	$517	$29,346,048
ADDITIONS TO PLANT:				
Cash Working Capital	$571,840	$10,523	$(122,195)	$460,168
Materials and Supplies	373,871	0	0	373,871
Total Additions to Plant	$945,711	$10,523	$(122,195)	$834,039
DEDUCTIONS FROM PLANT:				
Reserve for Deferred Taxes	$3,531,436	$(290,784)	$154,247	$3,394,899
Production Reserve for D. T.	310,371	(25,556)	0	$284,815
Customer Advances	0	269,185	0	$269,185
Unclaimed Funds	0	739	0	739
Customer Deposits	63,419	0	0	63,419
Total Deductions to Plant	3,284,484	4,696	154,247	3,443,427
RATE BASE - DISTRIBUTION	$27,992,831	$(980,246)	$(275,925)	$26,736,660
COST OF CAPITAL	9.09%	0.02%	-0.61%	8.50%
RETURN ON RATE BASE	$2,544,548	$(83,702)	$(188,230)	$2,272,616

SCHEDULE 5 GAS
COST OF CAPITAL

<----------PER COMPANY----------->

	PRINCIPAL	PERCENTAGE	COST	RATE OF RETURN
Long-Term Debt	$54,000,000	58.35%	7.55%	4.41%
Preferred Stock	2,191,400	2.37%	6.81%	0.16%
Common Equity	36,359,480	39.29%	11.50%	4.52%
Total Capital	$92,550,880	100.00%		9.09%
Weighted Cost of				
Debt				4.41%
Equity				4.68%
Cost of Capital				9.09%

<----------PER COMPANY - ADJUSTED----------->

	PRINCIPAL	PERCENTAGE	COST	RATE OF RETURN
Long-Term Debt	$51,000,000	56.74%	7.49%	4.25%
Preferred Stock	2,191,400	2.44%	6.81%	0.17%
Common Equity	36,694,782	40.82%	11.50%	4.69%
Total Capital	$89,886,182	100.00%		9.11%
Weighted Cost of				
Debt				4.25%
Equity				4.86%
Cost of Capital				9.11%

<----------PER ORDER----------->

	PRINCIPAL	PERCENTAGE	COST	RATE OF RETURN
Long-Term Debt	$51,000,000	56.74%	7.49%	4.25%
Preferred Stock	2,191,400	2.44%	6.81%	0.17%
Common Equity	36,694,782	40.82%	10.00%	4.08%
Total Capital	$89,886,182	100.00%		8.50%
Weighted Cost of				
Debt				4.25%

Equity	4.25%
Cost of Capital	8.50%

SCHEDULE 6 GAS

CASH WORKING CAPITAL

	PER COMPANY	COMPANY ADJUSTMENT	DTE ADJUSTMENT	PER ORDER
Total O&M Amount Subject to Cash Working Capital Allowance	$4,638,257	$85,354	$(226,650)	$4,496,961
Cash Working Capital Allowance (Total times 45/365) *	$571,840	$10,523	$(122,195)	$460,168

* The Department is using 37.35/365

SCHEDULE 7 GAS

TAXES OTHER THAN INCOME TAXES

	PER COMPANY	COMPANY ADJUSTMENT	DTE ADJUSTMENT	PER ORDER
Property Taxes	354,203	0	0	354,203
Less Property Taxes Capitalized	(3,834)	0	0	(3,834)
Total Property Taxes	350,369	0	0	350,369
Payroll Taxes				
FICA Taxes	$156,381	$0	$0	$156,381
Federal Unemployment Taxes	2,229	0	0	2,229
State Unemployment Taxes	6,724	0	0	6,724
Mass Health Insurance	643	0	0	643
Payroll Taxes Capitalized	(63,932)	0	0	(63,932)
Total Payroll Taxes	102,045	0	0	102,045
DistributionTaxes Other Than Income Taxes	452,414	0	0	452,414
Less Production Taxes Other Than Income	55,481	587	0	56,068
Sub-Total	396,933	(587)	0	396,346
Post Test Year Adjustments				
Payroll Taxes - Gas/Electric Allocations	7,549	0	0	7,549
Payroll Post Test-Year Increase	8,012	(32)	0	7,980
Property Tax Non-Utility Allocation	0	(69)	0	(69)
Property Taxes Post Test-Year Increase	166,327	6,807	(647)	172,487
	181,888	6,706	(647)	187,947
Total Distribution Taxes Other Than Income	578,821	6,119	(647)	584,293

SCHEDULE 8 GAS

INCOME TAXES

	PER COMPANY	COMPANY ADJUSTMENT	DTE ADJUSTMENT	PER ORDER
Rate Base	$27,992,831	(980,246)	(275,925)	$26,736,660
Return on Rate Base	2,544,548	(83,702)	(188,230)	2,272,616
		(6,099)		
LESS:				
Interest Expense	1,234,484	(41,660)	(56,515)	1,136,308
Amort of Investment Tax Credit	81,772	0	0	81,772
Deferred Tax Flowback	0	0	0	0
Total deductions	1,316,256	(41,660)	(56,515)	1,218,080
Taxable Income Base	1,228,292	(42,041)	(131,715)	1,054,536
Taxable Income (Net Income/.6171)	1,990,427	(68,127)	(213,442)	1,708,858
Mass Franchise Tax (6.5 Percent)	129,378	(4,428)	(13,874)	111,076
Federal Taxable Income	1,861,049	(63,699)	(199,568)	1,597,782
Federal Income Tax Calculated (34.0 Percent)	632,757	(21,658)	(67,853)	543,246
Total Income Taxes Calculated	762,134	(26,086)	(81,727)	654,322
Amortization of Investment Tax Credit	(81,772)	0	0	(81,772)
Fas 109 Annual Revenue Requirement	129,825	19,718	0	149,543
Distribution Income Taxes	810,403	(6,368)	(81,727)	722,093

SCHEDULE 9 GAS

REVENUES

	PER COMPANY	COMPANY ADJUSTMENT	DTE ADJUSTMENT	PER ORDER
Operating Revenues	$21,602,076	$0	$0	$21,602,076
EC Surcharge	$5,893	$0	$0	$5,893
LDAC	$119,164	$0	$0	$119,164
Unbilled Revenues	137,958	0	0	137,958
Weather Normalization	44,937	0	0	44,937
Lost Margins	(3,888)	0	0	(3,888)
Cost of Gas Adjustment (CGA) Revenues	(22,437)	0	0	(22,437)
Total	21,633,589	0	0	21,633,589
Less Production related Revenues	14,631,618	0	0	14,631,618
Distribution Revenues	7,001,971	0	0	7,001,971
Other Operating Revenues	$1,225,781	0	0	1,225,781
LDAC	16,185	0	0	16,185
Non-Utility and Water Heater and Conversion Burner	(411,258)	0	0	(411,258)
Total	830,708	0	0	830,708
Less Production related Other Revenues	792,453	0	0	792,453
Other Revenues	38,255	0	0	38,255
Total Distribution Revenues	$7,040,226	$0	$0	$7,040,226

SCHEDULE 10 A (gas)

REVENUE INCREASE PER ORDER: $2,956,961

	PER COSS												
Rate Class	Proposed COSS Target Revenue (A)	Current Revenues (B)	Proposed Deficiency at EROR (C)	Dept. Approved Revenue Increase (D)	Increase Indicated for EROR (E)	Adjusted Revenue Reqmt (F)	125 Percent Cap on Max Increase (G)	Target before Subsidies (H)	Reductions Due to Caps (I)	Un-Capped Targets (J)	Target Total Revenue Before LI (K)	Gas Revenues (L)	Target Base Revs Before Low Income (M)
R-1 & R-2	1,507,951	968,291	539,660	467,503	48.28%	1,435,794	1,132,636	1,132,636	303,158	0	1,132,636	467,325	665,311
R-3 & R-4	13,338,128	11,063,296	2,274,832	1,970,666	17.81%	13,033,962	12,941,030	12,941,030	92,933	0	12,941,030	7,869,582	5,071,448
G-41	2,601,979	2,149,154	452,825	392,278	18.25%	2,541,432	2,513,922	2,513,922	27,510	0	2,513,922	1,548,478	965,444
G-42	654,889	642,425	12,464	10,797	1.68%	653,222	751,461	653,222	0	653,222	683,887	381,839	302,048
G-43	3,488,954	3,305,200	183,754	159,184	4.82%	3,464,384	3,866,180	3,464,384	0	3,464,384	3,627,017	2,465,053	1,161,964
G-51	1,070,439	1,208,103	-137,664	-119,257	-9.87%	1,088,846	1,413,150	1,208,103	-119,257	0	1,208,103	764,230	443,873
G-52	1,451,959	1,313,968	137,991	119,540	9.10%	1,433,508	1,536,983	1,433,508	0	1,433,508	1,500,803	870,781	630,022
G-53	1,076,465	1,126,969	-50,504	-43,751	-3.88%	1,083,218	1,318,245	1,126,969	-43,751	0	1,126,969	443,396	683,573
TOTAL COMPANY	25,190,764	21,777,406	3,413,358	2,956,961	13.58%	24,734,367	25,473,607	24,473,775	260,592	5,551,115	24,734,367	14,810,684	9,923,683

NOTES:

Column (A) : Exh. FGE JLH-1 (gas), Sch. JHL-5-1, at 137-138 line 10;
Column (B) : Exh. FGE JLH-1 (gas), Sch. JHL-5-1, at 137-138 line 5;There is a difference of $143,817 between the total amount of this column and the distribution revenue on schedule 1 due to the reclassifications between distribution and other operating revenue accounts;
Column (C) : Column (A) - Column (B);
Column (D) : (Column (C) / Column (C) Total Company) * Revenue Increase Per Order;
Company should compute Column (D) by rerunning the COSS per DTE directives in this Order;
Column (E) : Column (D) / Column (B);
Column (F) : Column (B) + Column (D);
Column (G) : Column (B)*(1+125%*Column(E)Total Company);
Column (H) : If Column (F) > Column (G), use number in Column (G); If Column (F) < Column (B), use number in Column (B); Otherwise, use number in Column (F);
Column (I) : Column (F) -Column (H);
Column (J) : If Column (I) =0, use the number in Column (H); Otherwise number is zero;
Column (K) : The allocation of total revenue deficiency of Column (I) among those uncapped rate class by (Column (J) / Column (J) Total Company) * Column (I) Total Company, then add this allocation with Target Before Subsidies in Column (H);
Column (L) : Exh. FGE JLH-1 (gas), Sch. JHL-7, at 336 Second Column 19;
Column (M) : Column (K) - Column (L);

SCHEDULE 10 B (gas)

Rate Class	Target Base Revs Before Low Income (M)	Low Income Discount (N)	Rate Base (O)	Low Income Subsidy (P)	Final Dept. Approved Base Revs. (Q)	Total Revenues (R)	Final Dept. Approved Revs. Increase (%) (S)
R-1 & R-2	665,311	18,082	2,504,209	17,698	664,927	1,132,252	16.93%
R-3 & R-4	5,071,448	197,422	15,504,913	109,578	4,983,604	12,853,186	16.18%
G-41	965,444	0	3,140,876	22,198	987,642	2,536,120	18.01%
G-42	302,048	0	825,620	5,835	307,883	689,722	7.36%
G-43	1,161,964	0	3,613,882	25,541	1,187,504	3,652,557	10.51%
G-51	443,873	0	1,143,525	8,082	451,955	1,216,185	0.67%
G-52	630,022	0	1,861,043	13,153	643,175	1,513,956	15.22%
G-53	683,573	0	1,898,856	13,420	696,993	1,140,389	1.19%
TOTAL COMPANY	9,923,683	215,504	30,492,924	215,504	9,923,683	24,734,367	13.58%

NOTES:

Column (M) : Column (K) - Column (L);
Column (N) : Calculated by redistributing the low-income revenue shortfall to all rate classes through an iterative process until the low-income discount equals 40 percent;
Column (O) : Exh. FGE JLH-1 (gas), Sch. JHL-5-1, at 097-098 line 8;
Column (P) : Allocation the low income subsidy in Column (N) to all rate classes based on rate base in Column (O);
Column (Q) : Column (M) - Column (N) + Column (P);
Column (R) : Column (L) + Column (Q);
Column (S) : Column (R) / Column (B) -1.

SCHEDULE 1 ELECTRIC

REVENUE REQUIREMENTS AND
CALCULATION OF REVENUE INCREASE

	DISTRIBUTION PER COMPANY	COMPANY ADJUSTMENT	DTE ADJUSTMENT	PER ORDER
COST OF SERVICE				
Total O&M Expense	$7,349,307	$175,488	(199,997)	$7,324,798
Depreciation and Amortization	3,090,556	2,275	(88,139)	3,004,692
Taxes Other Than Income Taxes	871,513	9,806	(19,785)	861,534
Income Taxes	1,455,335	26,947	(189,503)	1,315,633
Interest On Customer Deposits	11,456	0	0	11,456
Return On Rate Base	3,810,459	74,077	(484,860)	3,399,676
Total Cost Of Service	$16,588,626	288,593	(982,284)	15,917,789
OPERATING REVENUES				
Base Revenues	$13,683,920	0	572,089	$14,256,009
Other Operating Revenues	468,600	0	0	468,600
	14,152,520	0	572,089	14,724,609
Less Internal Transmission Revenues	770,662	0	0	770,662
Total Revenues	13,381,858	0	572,089	13,953,947
Revenue Deficiency	$3,206,768	$288,593	$(1,554,373)	$1,963,842

SCHEDULE 2 ELECTRIC

OPERATIONS AND MAINTENANCE EXPENSES

	PER COMPANY	COMPANY ADJUSTMENT	DTE ADJUSTMENT	PER ORDER
Total O&M Expense Per Books	$55,257,307	$0	$0	55,257,307
Less: Energy Efficiency	1,402,029	0	0	1,402,029
External Transmission	2,716,803	0	0	2,716,803
Transition Charge	11,925,669	0	0	11,925,669
Standard Offer	26,648,691	0	0	26,648,691
Default Service	5,018,191	0	0	5,018,191
Sub-Total	7,545,924	0	0	7,545,924
ADJUSTMENTS TO O&M EXPENSE:				
Advertising Expense	(10,786)	0	0	(10,786)
Gas/Electric Divisions Allocations	53,140	0	0	53,140
Incentive Compensation	0	0	(10,798)	(10,798)
Inflation Allowance	127,221	37,992	(5,805)	159,408
Medical and Dental Expense	22,729	0	(17,103)	5,626
Non-Utility WH and CB Rental Program	(15,163)	(495)	12	(15,646)
Other Power Supply Expenses	(32,412)	32,412	(32,412)	(32,412)
Payroll Expense	103,884	(466)	0	103,418
Pension Expense	105,778	0	0	105,778
Post Employment Benefit Other Than Pension	69,730	(15,174)	0	54,556
Property and Liability Insurance	111,138	(87)	0	111,051
Rate Case Expense	107,393	1,793	(23,064)	86,122
Rent Expense	0	132,824	0	132,824
Uncollectible Expense	(342,823)	0	(7,683)	(350,506)
Meter Removals	0	0	(6,045)	(6,045)
USC Service Charge	(22,749)	(1,994)	(97,099)	(121,842)
Adjustment to O&M Expense	277,080	186,805 90	(199,997)	274,674
O&M Expense	7,823,004	186,805	(199,997)	7,820,598
Less Internal Transmission	473,697	11,317	0	485,014
DISTRIBUTION O&M EXPENSE	$7,349,307	$175,488	$(199,997)	$7,335,584

SCHEDULE 3 ELECTRIC

DEPRECIATION AND AMORTIZATION EXPENSES

	PER COMPANY	ADJUSTMENT	ADJUSTMENT	PER ORDER
Depreciation & Amortization Expense	$3,919,829	0	$0	PER ORDER
Less: Seabrook Amortization Surcharge	984,886	0	0	984,886
Transition Charge	890,929	0	0	890,929
Total Test Year D&A	2,044,014	0		-1,875,815
Test Year Adjustment to Depreciation	1,127,905	0	(32,864)	1,095,041
Test Year Adjustment to Amortization	190,072	2,475	(55,275)	137,272
Sub-Total	3,361,991	2,475	(88,139)	3,276,327
Less Internal Transmission	271,435	200	0	271,635
Total Distribution D & A Expense	$3,090,556	$2,275	(88,139)	$3,004,692

SCHEDULE 4 ELECTRIC

RATE BASE AND RETURN ON RATE BASE

	PER COMPANY	COMPANY ADJUSTMENT	DTE ADJUSTMENT	PER ORDER
Utility Plant in Service	$69,280,223	(873,505)	(1,033,889)	$67,372,829
Less Internal Transmission	6,068,245	(76,510)	0	$5,991,735
	63,211,978	(796,995)	(1,033,889)	61,381,094
				19,886,504
Reserve For Depreciation	19,882,060	4,444	(645,261)	19,241,243
Less Internal Transmission	2,419,516	541	0	2,420,057
	17,462,544	3,903	(645,261)	16,821,186
Net Utility Plant in Service	45,749,434	(800,898)	(388,628)	44,559,908
ADDITIONS TO PLANT:				
Cash Working Capital	2,523,329	75,527	(1,880,522)	718,333
Materials and Supplies	771,667	0	0	771,667
Less Internal Transmission Materials and Supplies	71,604	0	0	71,604
Total Additions to Plant	3,223,392	75,527	(1,880,522)	1,418,396
				(1,880,189)
DEDUCTIONS FROM PLANT:				
Reserve for Deferred Taxes	7,507,068	(1,773,338)	375,008	6,108,738
Customer Advances	0	176,123	0	176,123
Unclaimed Funds	0	1,161	0	1,161
Customer Deposits	179,726	0	0	179,726
Less Internal Transmission Res. for Def. Taxes	633,205	(149,577)	0	483,628
	7,053,589	(1,446,477)	375,008	5,982,120
RATE BASE	$41,919,237	$721,106	$(2,644,158)	$39,996,184
COST OF CAPITAL	9.09%	0.02%	0.61%	8.50%
RETURN ON RATE BASE	$3,810,459	$74,077	$(484,860)	$3,399,676

SCHEDULE 5 ELECTRIC

COST OF CAPITAL

	<----------PER COMPANY---------->			
	PRINCIPAL	PERCENTAGE	COST	RATE OF RETURN
Long-Term Debt	$54,000,000	58.35%	7.55%	4.41%
Preferred Stock	2,191,400	2.37%	6.81%	0.16%
Common Equity	36,359,480	39.29%	11.50%	4.52%
Total Capital	$92,550,880	100.00%		9.09%
Weighted Cost of				
Debt				4.41%
Equity				4.68%
Cost of Capital				9.09%

	<----------PER COMPANY - ADJUSTED---------->			
	PRINCIPAL	PERCENTAGE	COST	RATE OF RETURN
Long-Term Debt	$51,000,000	56.74%	7.49%	4.25%
Preferred Stock	2,191,400	2.44%	6.81%	0.17%
Common Equity	36,694,782	40.82%	11.50%	4.69%
Total Capital	$89,886,182	100.00%		9.11%
Weighted Cost of				
Debt				4.25%
Equity				4.86%
Cost of Capital				9.11%

	<----------PER ORDER---------->			
	PRINCIPAL	PERCENTAGE	COST	RATE OF RETURN
Long-Term Debt	$51,000,000	56.74%	7.49%	4.25%
Preferred Stock	2,191,400	2.44%	6.81%	0.17%
Common Equity	36,694,782	40.82%	10.00%	4.08%
Total Capital	$89,886,182	100.00%		8.50%
Weighted Cost of				
Debt				4.25%
Equity				4.25%
Cost of Capital				8.50%

SCHEDULE 6 ELECTRIC

CASH WORKING CAPITAL

	PER COMPANY	COMPANY ADJUSTMENT	DTE ADJUSTMENT	PER ORDER
Other O&M Cash Working Capital	$7,349,307	$175,488	$(504,941)	$7,019,854
Cash Working Capital Allowance (Total times 45/365) *	$906,079	$21,636	$(209,381)	$718,333
Purchase Power Expense	$33,274,878	$1,108,807	$(34,383,685)	$0
Purchase Power CWC (Total times 17.74/365)	$1,617,250	$53,891	$(1,671,141)	$0
Total Cash Working Capital	$2,523,329	$75,527	$(1,880,522)	$718,333

* The Department is using 37.35/365

SCHEDULE 7 ELECTRIC

TAXES OTHER THAN INCOME TAXES

	PER COMPANY	COMPANY ADJUSTMENT	DTE ADJUSTMENT	PER ORDER
Property Taxes	690,643	0	0	690,643
Less Property Taxes Capitalized	(7,476)	0	0	(7,476)
Total Property Taxes	683,167	0	0	683,167
Payroll Taxes				
FICA Taxes	$206,284	$0	$0	$206,284
Federal Unemployment Taxes	2,941	0	0	2,941
State Unemployment Taxes	8,869	0	0	8,869
Mass Health Insurance	849	0	0	849
Payroll Taxes Capitalized	(84,334)	0	0	(84,334)
Total Payroll Taxes	134,609	0	0	134,609
DistributionTaxes TOIT	817,776	0	0	817,776
Less Internal Transmission TOIT	74,444	837	0	75,281
Sub-Total	743,332	(837)	0	742,495
Post Test Year Adjustments				
Payroll Taxes - Gas/Electric Allocations	(7,549)	0	0	(7,549)
Payroll Post Test-Year Increase	7,668	(42)	0	7,626
Property Taxes Post Test-Year Increase	128,062	10,689	(19,785)	118,966
Property Taxes Non-Utility	0	(4)		(4)
	128,181	10,643	(19,785)	119,039
Total Distribution TOIT	871,513	9,806	(19,785)	861,534

SCHEDULE 8 ELECTRIC

INCOME TAXES

	PER COMPANY	COMPANY ADJUSTMENT	DTE ADJUSTMENT	PER ORDER
Rate Base	$41,919,237	$721,106	$(2,644,158)	$39,996,184
Return on Rate Base	3,810,459	74,077	(484,860)	3,399,676
LESS:				
Interest Expense	1,848,638	30,647	(179,448)	1,699,838
Amort of Investment Tax Credit	0	0	0	0
Deferred Tax Flowback	0	0	0	0
Total deductions	1,848,638	30,647	(179,448)	1,699,838
Taxable Income Base	1,961,820	43,430	(305,412)	1,699,838
Taxable Income (Net Income/.6171)	3,179,096	70,377	(494,915)	2,754,558
Mass Franchise Tax (6.5 Percent)	206,641	4,574	(32,169)	179,046
Federal Taxable Income	2,972,455	65,802	(462,746)	2,575,512
Federal Income Tax Calculated (34.0 percent)	1,010,635	22,373	(157,333)	875,674
Total Income Taxes Calculated	1,217,276	26,947	(189,503)	1,054,720
Amortization of Investment Tax Credit	0	0	0	0
FAS 109 ANNUAL Revenue Requirement	260,913	0	0	260,913
Distribution Income Taxes	$1,455,335	$26,947	$(189,503)	$1,315,633

SCHEDULE 9 ELECTRIC
REVENUES

	PER COMPANY	COMPANY ADJUSTMENT	DTE ADJUSTMENT	PER ORDER
Operating Revenues	$67,616,461	0	0	$67,616,461
Less: Seabrook Amortization Surcharge	3,531,943	0	0	$3,531,943
Energy Efficiency	1,777,225	0	0	$1,777,225
External Transmission	2,676,254	0	0	$2,676,254
Transition Charge	13,293,858	0	0	$13,293,858
Standard Offer Service	26,650,107	0	0	$26,650,107
Default Service	5,018,191	0	0	$5,018,191
Total Base Revenues	14,668,883	0	0	14,668,883
Add Newark Paper	0	0	572,089	$572,089
Less: Annualized rate decrease	984,963	0	0	984,963
Test Year Operating Revenues per books	13,683,920	0	572,089	14,256,009
Less Internal Transmission	661,183	0	0	661,183
Distribution Base Revenues	13,022,737	0	572,089	13,594,826
Other Operating Revenues	848,632	0	0	848,632
Less: Seabrook Amortization Surcharge	81,611	0	0	81,611
Energy Efficiency	30,828	0	0	30,828
External Transmission	50,808	0	0	50,808
Transition Charge	168,452	0	0	168,452
Other Operating Revenues per books	516,933	0	0	516,933
Less: Water Heater Rental	48,333	0	0	48,333
Operating Revenues	468,600	0	0	468,600
Less Internal Transmission	109,479	0	0	109,479
Total Other Operating Revenues	359,121	0	0	359,121
Total Revenues	13,381,858	0	572,089	13,953,947
Revenues for Bad Debt	$62,307,293			
Adjustments to Oper. Rev. per books				
To Annualize rate decrease from DTE 99-118	(984,963)	0	0	(984,963)
Rental Water Heater Program	(48,333)			(48,333)
Total Adjustments to Oper. Rev. per books	(1,033,296)	0	0	(1,033,296)
Distribution Revenues	13,635,587	0	0	13,635,587
Less Internal Transmission Revenues	687,513	0	0	687,513
Total Distribution Revenues	$12,948,074	$0	$0	$12,948,074

SCHEDULE 10 A (electric)

REVENUE INCREASE PER ORDER $1,963,842

Rate Class	PER COSS Proposed COSS Target Revenue (1)	PER COSS Current Revenue (2)	PER COSS Proposed Deficiency at EROR (3)	Share of Increase (4)	Department Approved Revenue Increase (5)	Department Approved Revenue Target (6)	Increase ndicated fo EROR (7)	125 Percent Cap on Max. Increase (8)	Minimum (No Decrease) (9)	Target Before Subsidies (10)	Reductions Due to Caps (11)	Un-capped Targets (12)	Department Approved Target Revenue Before LI Discount and UTC (13)
Residential	$7,923,869	$6,287,359	$1,636,510	62.11%	$1,219,825	$7,507,184	19.4%	$7,422,660	$6,287,359	$7,422,660	$84,524	$0	$7,422,660
Small C/I	$388,998	$276,791	$112,207	4.26%	$83,637	$360,428	30.2%	$326,771	$276,791	$326,771	$33,657	$0	$326,771
Medium C/I	$4,021,116	$3,581,222	$439,894	16.70%	$327,889	$3,909,111	9.2%	$4,227,879	$3,581,222	$3,909,111	$0	$3,909,111	$4,149,859
Large C/I	$2,996,831	$3,058,758	-$61,927	-2.35%	-$46,159	$3,012,599	-1.5%	$3,611,075	$3,058,758	$3,012,599	$0	$3,012,599	$3,198,134
Streetlight	$898,690	$390,696	$507,994	19.28%	$378,650	$769,346	96.9%	$461,244	$390,696	$461,244	$308,102	$0	$461,244
Total Company	$16,229,504	$13,594,826	$2,634,678	100%	$1,963,842	$15,558,668	14.4%	$16,049,629	$13,594,826	$15,132,385	$426,283	$6,921,710	$15,558,668

NOTES:

(1) Exh. FGE JLH-1 (electric), Sch. JLH-4, at 152;
(2) Exh. FGE JLH-1 (electric), Sch. JLH-4, at 152. Includes Department revised test year revenues for Newark America; See Schedule 9, Distribution Base Revenues Per Order.
(3) Column (1) - Column (2);
(4) Column (3)/Column (3) Total Company;
(5) Column (4) * Revenue Increase per Order;
(6) Column (2) + Column (5);
(7) Column (6)/Column (2)-1;
(8) Column (2) * (1+ 1.25 * Column (7) Total Company;
(9) Column (2);
(10) If Column (6) is greater than Column (8) then Column (8), otherwise Column (6);
(11) Column (6) - Column (10);
(12) Column (12) if Column (12) value is less than Column (8) value;
(13) If Column (12) is not 0, then Column (12) is increased by Column (11) Total Company * Column (12)/Column (12) Total Company.
If Column (12) is 0, then Column (10);

SCHEDULE 10 B (electric)

Rate Class	Department Approved Target Revenue Before LI Discount and UTC (13)	Low Income Discount (14)	Rate Base (15)	Low Income Subsidy (16)	Base Revenue Target (17)	Uniform Transition Revenue Redistribution (18)	Base Revenue Increase (19)	Final Department Approved Revenue Increase (20)
Residential	$7,422,660	$187,860	$19,974,268	$83,266	$7,318,066	$7,375,418	16.39%	17.31%
Small C/I	$326,771	-	$854,007	$3,560	$330,331	$323,019	19.34%	16.70%
Medium C/I	$4,149,859	-	$12,064,714	$50,294	$4,200,153	$4,190,063	17.28%	17.00%
Large C/I	$3,198,134	-	$10,407,367	$43,385	$3,241,519	$3,217,898	5.98%	5.20%
Streetlight	$461,244	-	$1,764,410	$7,355	$468,599	$452,287	19.94%	15.76%
Total Company	$15,558,668	$187,860	$45,064,766	$187,860	$15,558,668	$15,558,686		14.45%

NOTES:

(13) If Column (12) is not 0, then Column (12) is increased by Column (11) Total Company * Column (12)/Column (12) Total Company. If Column (12) is 0, then Column (10);

(14) Calculated by redistributing the low-income revenue shortfall to all rate classes through an iterative process until the low-income discount equals 40 percent;

(15) Exh. FGE JLH-1 (electric), Sch. JLH-4, at 152;

(16) Result of the redistribution calculation referenced in Note (14);

(17) Column (13) - Column (14) + Column (16);

(18) Calculated by determining revised distribution rates once a UTC has been calculated for the Company as a whole.

(19) Column (17)/Column (2) - 1;

(20) Column (18)/Column (2) - 1.

IX. ORDER

Accordingly, after due notice, hearing and consideration, it is

ORDERED: That the tariffs M.D.T.E. Nos. 110 through 117, filed by Fitchburg Gas and Electric Light Company on May 17, 2002, to become effective June 1, 2002, are DISALLOWED; and it is

FURTHER ORDERED: That the tariffs M.D.T.E. Nos. 86 through 89, filed by Fitchburg Gas and Electric Light Company on May 17, 2002, to become effective June 1, 2002, are DISALLOWED; and it is

FURTHER ORDERED: That Fitchburg Gas and Electric Light Company shall file new schedules of rates and charges designed to increase annual gas base rate revenues by $2,956,961; and it is

FURTHER ORDERED: That Fitchburg Gas and Electric Light Company shall file new schedules of rates and charges designed to increase annual electric base rate revenues by $1,963,842; and it is

FURTHER ORDERED: That Fitchburg Gas and Electric Light Company shall file all rates and charges required by this Order and shall design all rates in compliance with this Order; and it is

FURTHER ORDERED: That Fitchburg Gas and Electric Light Company shall comply with all other orders and directives contained herein; and it is

FURTHER ORDERED: That the new rates shall apply to gas and electricity consumed on or after the date of this Order, but unless otherwise ordered by the Department, shall not become effective earlier than seven (7) days after they are filed with supporting data demonstrating that such rates comply with this Order.

By Order of the Department,

_____
Paul B. Vasington, Chairman

_____
James Connelly, Commissioner

_____
W. Robert Keating, Commissioner

_____
Eugene J. Sullivan, Jr., Commissioner

_____
Deirdre K. Manning, Commissioner

Appeal as to matters of law from any final decision, order or ruling of the Commission may be taken to the Supreme Judicial Court by an aggrieved party in interest by the filing of a written petition praying that the Order of the Commission be modified or set aside in whole or in part.

Such petition for appeal shall be filed with the Secretary of the Commission within twenty days after the date of service of the decision, order or ruling of the Commission, or within such further time as the Commission may allow upon request filed prior to the expiration of twenty days after the date of service of said decision, order or ruling. Within ten days after such petition has been filed, the appealing party shall enter the appeal in the Supreme Judicial Court sitting in Suffolk County by filing a copy thereof with the Clerk of said Court (Sec. 5, Chapter 25, G.L. Ter. Ed., as most recently amended by Chapter 485 of the Acts of 1971).